REVENUE CYCLE MANAGEMENT

by

Mary Scalf

Dissertation

Submitted in Partial Fulfillment

Of the Requirements for the Degree of

Doctor of Business Administration

Liberty University, School of Business

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Abstract

The healthcare industry continues to navigate through legislative changes requiring a change from the fee-for-service model to a value-based model. Healthcare is required to balance quality care of the patient and financial viability. The general problem to be addressed is the inefficient adoption of a revenue integrity program within the revenue cycle management process resulting in a revenue deficit for healthcare providers. The purpose of this qualitative case study was to add to the body of knowledge exploring the possible inefficient insurance denial management process within non-profit hospital-owned physician practices resulting in revenue deficits for the provider clinics. The study achieved this purpose by exploring barriers to the revenue cycle management process. The researcher conducted a qualitative case study with 14 participants. Based on the identified themes the researcher shared implications and strategies to improve general business practices. Additionally, this study shared recommendations for future research. To improve revenue cycle process healthcare organizations can consider improved communications, increase knowledge and skill set, focus on staff resources and retention efforts, review data analytics, and consider a revenue integrity adoption program.

Keywords: revenue cycle management, insurance denial management, data analytics, biller, coder, revenue integrity

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Dedication

I am dedicating this work to God; for without Him I am nothing. God has always demonstrated his love and forgiveness despite all my mistakes. I felt His presence throughout this journey as I have sought to find His purpose for me.

To my Grandma Ruby and Grandpa Asbery, I dedicate this dissertation to you. You instilled in me the desire to keep God first, have integrity, and to work hard. You also shared how important and how proud it made you both to see me further my education. Although you have both reached your destination with Jesus, I know you are smiling.

I also dedicate this dissertation to my husband, Thomas, for he has always supported me throughout this journey. To my mother, I scored one of the best. Dad, you would be proud of me. I know you have found your peace with Jesus. Bradley, we miss and love you. We will see you when it is our time to cross over. To the rest of my inner family circle, Jason, Brooke, Nellie, Cameron, Gracie, Fuller, Pops, and Granny, without your love and support I could not have accomplished this educational journey. To my pets, Darcy, Teddy, and Lucy, I appreciated the company and happiness you created in my writing space.

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"It is the Lord who directs your life, for each step you take is ordained by God to bring you closer to your destiny."

Proverbs 20:24 TPT

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Section 1: Foundation of the Study

Healthcare delivery aims to provide quality care to patients to allow patients to thrive. In comparison, healthcare entities and provider clinics must ensure the business aspect of healthcare delivery also thrives on remaining financially viable. According to Cascardo (2018), the definition of success in a healthcare entity or provider clinic is viewed when an organization is productive, efficient, financially profitable, and clinically proficient. Legislation, inefficient processes, and the skill set of employees and providers are possible barriers to a healthcare organization's success. There is a better chance for financial success when all key stakeholders participate in strategic planning and organizational efficiency.

Background of the Problem

Areas of concern in the healthcare industry include legislative changes, rising healthcare costs, access to healthcare, reform, reductions in revenue reimbursement, and the ability to provide value-based care. Governmental legislation has introduced significant policy changes through the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), such as the transition from fee-for-service to a value-based payment system. MACRA provides the pathway for hospital systems and physician practices to increase revenue reimbursement (Barnes, 2017). As healthcare entities move toward value-based services, overcoming operational barriers and potentially creating a revenue integrity platform remains a challenge to the financial viability of these organizations.

The root cause of legislative changes stemmed from the U.S. health care spending increase. Dieleman et al. (2020) stated that healthcare costs comprise 18% of the U.S. economy. More detailed analytics reveal that the total health care spending increased from an estimated $1.4 trillion in 1996, which is 13.3% of the gross domestic product, to an estimated $3.1 trillion

in 2016, which is 17% of the gross domestic product. When dissecting these analytics to a more granular level, the increase can be described as the United States spends more on healthcare per person than in historical data and in comparison, to nearly all other countries. Dieleman et al. (2020) further explained insurance payers, and uninsured patients track healthcare spending. Data are tracked by type of care, age of the patient, type of insurance payer, primary and secondary diagnoses codes, and patient's health condition. Data analytics are tracked first by the primary health condition. However, coded secondary or co-morbid conditions contribute to healthcare expenditures as well.

An additional impact on the financial viability of a healthcare entity is the impact of reimbursement systems and their correlation to the cooperation and integration of medical physicians and advance practice providers. The challenge healthcare offices and entities have with the new reimbursement strategy is the need to improve the quality of care while balancing incentive functions for the providers. Heider and Mang (2020) suggested that although monetary incentives intend to implement control, increase quality, and reduce costs, these measures are not always successful.

Problem Statement

The general problem addressed by this case study was the inefficient adoption of a revenue integrity program within the revenue cycle management process resulting in a revenue deficit for healthcare providers. According to a survey involving 125 healthcare executives by the Healthcare Financial Management Association, at least 22% of the respondents identified revenue integrity as the leading initiative for their organizations; however, fewer than half (44%) have established revenue integrity programs (H.F.M.A., 2019). In an additional study, Holyoak (2017a) found that most organizations take an administrative and reactive approach to insurance

denial management and struggle to implement actionable initiatives in the revenue cycle management process. Cascardo (2018) further supported these views by stating that there is very little coordination among the key stakeholders within the revenue cycle management process, resulting in inefficient processes creating revenue leakage points. Kovach and Borikar (2018) stated that reimbursement revenues decreased by approximately 3% to 5% due to insurance claim denials representing rework, causing a delay in revenue collections. The specific problem addressed by this case study was the potential inefficient insurance denial process within non-profit hospital-owned physician practices in the northwest region of Georgia, resulting in revenue deficits for the provider clinics.

Purpose Statement

The purpose of this flexible design qualitative case study was to explore the possible inefficient insurance denial management process within non-profit hospital-owned physician practices resulting in revenue deficits for the provider clinics. The administrative and clinical burden of healthcare delivery leaves potential productivity, clinical quality, and revenue reimbursement inefficiencies. Bowman et al. (2019) proposed that organizations create a preventative plan to mitigate the financial risk of insurance denial management. However, due to the complexities of healthcare, the action plan becomes a matter of guesswork, not an efficient process (Bowman et al., 2019).

Healthcare leadership, clinicians, finance team members, and revenue cycle team members are responsible for being good fiduciary stewards while balancing the patient's quality of care. An essential aspect of leadership responsibilities in a healthcare entity or provider clinic is to influence and foster a culture of change to promote the effectiveness of revenue cycle management and achieve financial success.

Research Questions

According to Cascardo (2018), as healthcare organizations transition toward a value-based platform, the focus is shifted toward the patient experience and quality care. The concern in delivering quality healthcare is maintaining revenue flow adequate to meet delivery costs. The analysis and research of operational actions within a healthcare organization are necessary to evaluate areas of revenue leaks. The governance and structure of a health care organization may also impact revenue reimbursement (Zhu et al., 2016). Comparison and analysis of the structure of a non-profit versus a for-profit healthcare group may allow insight into a negative revenue stream. The ability of an organization to create a revenue integrity team may also provide insight into revenue leakage points (H.F.M.A., 2019). This qualitative study is designed to research the following areas in revenue cycle management.

Research Question 1. What organizational actions impact the adoption of a revenue integrity program?

Research Question 1a. What organizational actions contribute to efficient insurance denial management?

Research Question 1b. What organizational actions contribute to inefficient insurance denial management?

Research Question 2. What impact does a non-profit organizational status have on revenue cycle management?

Research Question 3. How does the difference between a hospital-owned (non-profit) physician practice versus an independent practice (for-profit) impact revenue cycle management?

The first research question and subset A and B seek to determine what inefficiencies and efficiencies exist within the revenue cycle management process. The questions also seek to

understand what barriers may exist to the focus of a proactive instead of a reactive denials management strategy (Reiner, 2018). Understanding organizational actions is essential to identify success and failure in the revenue cycle process. Cascardo (2018) identified specific individuals and critical tasks associated with revenue cycle management. In some areas, functions can create leakage points for anticipated revenue within these tasks.

The second research question addresses how non-profit status impacts revenue cycle management. Zhu et al. (2016) proposed strategic and operational management variations between non-profit and for-profit healthcare organizations. As there are additional critical components in non-profit entities, this research question is pertinent to the impact on revenue cycle management.

The third question is more specific in the differences between a non-profit versus an independent or for-profit physician clinic and the impact on the revenue cycle management process. This question allows the future case study to compare revenue cycle management processes between the community non-profit hospital-owned physician groups and local independent for-profit physician practices.

The research questions fully addressed the specific problem statement by first being qualitative and seeking to understand the revenue cycle management process. Secondly, the research questions define revenue cycle management's key components, actions, and individuals. The research questions probe into why inefficiencies exist within the revenue cycle process and where areas for failure or success may exist. Holyoak (2017b) proposed that the impact on revenue cycle reimbursement through insurance denials is not constantly monitored efficiently by leadership. Lee et al. (2016) highlighted barriers that exist in leveraging effective revenue cycle management, causing an impact on revenue dollars. The coverage of the specific problem

statement is also maintained by research questions 2 and 3 by further delving into the non-profit and for-profit comparison processes. The last question also supports the specific problem statement by emphasizing the focus on the geographic region selected by the specific problem statement.

Nature of the Study

As a researcher, one must understand the nature of the study and how to increase knowledge of a subject. The researcher must decipher the types of research paradigms, research designs, and research methodologies. The research topic drove the methodologies surrounding the nature of the study. The attributes of each paradigm, design, and method, as well as their appropriateness to this research study, are examined below.

Research Paradigms

The first step in the research is the selection of a research paradigm. According to Rehman and Alharthi (2016), a paradigm is "a fundamental belief system and theoretical framework with assumptions. There are four research paradigms which include (a) positivism, (b) post-positivism, (c) constructivism, and (d) pragmatism. Mulisa (2022) further proposed research paradigms reflect a researcher's conviction and determination of how the research should be carried out and the outcome. The researcher needs to understand the variety of nuances within the research paradigms. Park et al. (2020) explained that understanding paradigm-specific assumptions is important, as paradigms "provide a deeper understanding of how science is operationalized and of components that promote legitimate problems, solutions, and criteria for evidence."

Positivism

According to Park et al. (2020), the positivism research paradigm utilizes the hypothetico-deductive method to verify a hypothesis typically stated as a quantitative thought. The research then explores functional relationships that can be derived between causal and explanatory factors and outcomes. One must understand that positivism does not always rely on only quantitative methods and that qualitative analysis can fit within this research paradigm. Qualitative analysis is completed by studying a cause-and-effect relationship.

Turyahikayo (2021) noted that the positivist paradigm in the philosophy of Plato claimed that knowledge had to be certain, universal, and immutable. One perception of positivism is the claim that people's opinions, values, and beliefs may not be true or based on a scientific basis. Turyahikayo (2021) further proposed one major critique of positivism may show how knowledge is acquired; the paradigm may not adequately explain how the knowledge is processed and shared among all parts of an organization. Positivism is not the accurate research paradigm for revenue cycle management as there is not a mixed method approach of qualitative and quantitative approach nor a cause-and-effect basis.

Post-Positivism. The post-positivism is a research design created from the initial limitations of positivism. Positivism is typically steeped in observable and empirical analytic facts. In contrast, post-positivism is a mixed paradigm approach using positivism and interpretivism (Panhwar et al., 2017). Panhwar et al. (2017) further proposed the post-positivism research paradigm is not only a combination of qualitative and quantitative approaches, but this approach allows the researcher the flexibility of various research approaches and methods. Therefore, eliminating a forced choice by allowing more diversity.

Turyahikayo (2021) also further defined the post-positivism paradigm as the avenue to conceptualize reality from multiple perspectives. Additionally, suppose the paradigm calls for multiple sources in knowledge creation. In that case, there may be circumstances when organizational problems require a simple solution in which a mixed method approach is not optimal. Although this is a flexible research approach, post-positivism is not the most appropriate for the revenue cycle research as the constructivism model is aligned better.

Constructivism. Constructivism's ideology is that a researcher seeks to understand the world in which they live by relying as much as possible on the participants' views of the situation (Kumatongo & Muzata, 2021). From the constructivist viewpoint, learning occurs through experimentation, doing, and engaging in the world in which they live. This viewpoint relies on the ability of a researcher to construct knowledge of perceived reality. Another interesting viewpoint of constructivism implies that learning does not occur in traditional teaching classroom environments; however, it does discover knowledge through the spirit of experimentation. Leveraging one's perception of reality then creates the social construct of knowledge.

Barbehon's (2020) viewpoint of constructivism or the social construction framework is that the paradigm focuses on the relationship between policy design and the construction of targe groups. However, Barbehon (2020) further proposed constructivism was revitalized in the early 1990s from the contributions of Helen Ingram and Anne Schnider with the introduction of social construction framework. This transition is the catalyst for introducing policy theories within this research paradigm. Additionally, the social construction framework of the constructivism paradigm appears to have an overarching set of positivist principles in Barbehon's (2020) viewpoint.

When considering Kumatongo and Muzata's (2021) stance of learning through experimentation, constructivism is the most appropriate research design for the study of revenue cycle management. There are many actors and key stakeholders in the complex process. Seeking to understand and learn from the components of revenue cycle management appropriately creates a foundation for the purpose of this study.

Pragmatism. The final research paradigm is pragmatism. Pragmatism appears to have developed since its original inception in the 1800s. Founders included Charles Sanders Pierce, John Dewey, and William James. Ormerod (2021) proposed pragmatism regarded logic as the art of devising research methods as a division of philosophy. A more detailed definition of pragmatism is the development of the inquiry method in terms of the logic of inquiry as being two sides of the same coin.

Additionally, the importance of community and the fact that different people or groups of people have a variety of perspectives is a vital part of understanding the pragmatic approach. Pragmatism developed further again in the 1940s. The paradigm shifted into a formal theory of social sciences and empirical social research, according to Ormerod (2021). The pragmatism research approach also incorporates both qualitative and quantitative designs. This use of the mix-method design described by Kumatongo and Muzata (2021) allowed the researcher to be flexible and have a full foundation to explore and understand the phenomena under study. Again, this paradigm is inappropriate for revenue cycle management based on the mixed methodology.

Research Designs

Within the research, designs are three available types and are inclusive of fixed, flexible, and mixed method designs. A fixed design is quantitative in contrast to a flexible design which is qualitative. The mixed-method approach to research utilizes both qualitative and quantitative

data. A researcher must choose either a qualitative, quantitative, or mixed-method approach to their research. Clare (2022) described qualitative research as an avenue to explore complex issues to understand a process like a consultation or a story. Using interviews and speaking directly with individuals allows the researcher to understand the problem being researched. The qualitative research method is appropriate for this study to allow for analyzing the actions of a healthcare organization that may impact inefficiencies in the revenue cycle management process.

Mulisa (2022) described quantitative research as an alternative method in which research techniques study data measurement. The researcher ruled out a quantitative research approach because an in-depth opinion of individuals in the revenue cycle process and the organization's actions were chosen for this study. The researcher used open-ended theory-related questions that quantitative research approaches would be unable to answer. Mulisa (2022) further supported this decision as the quantitative study is solely based on numerical data and is driven by statistical rules. In contrast, pure qualitative research is based entirely on innumerable data and is guided by a greater degree of dialectics and adaptability.

A mixed-method approach, a combination of qualitative and quantitative research techniques, was another viable option. This methodology helps glean hypothetical data as well as theory. Mulisa (2022) describes the mixed method approach as going beyond the idea of combining numerical and non-numerical data and entails the philosophical and historical stances in literature. However, the mixed method approach was unsuitable for studying revenue cycle management.

Research Methods

Research is the foundation for participation in the scholarly community. Utilizing research promotes self-reflection, critical thinking, scientific questioning, and intent to

understand. Research is also gathered in various methods to allow the researcher a full compendium of resources to create a scholarly work. Mfinanga et al. (2019) explained the available research methods for use in qualitative research include case study, narrative, ethnography, phenomenology, and grounded theory. The descriptions of each research design are discussed below, as the appropriateness to this research study.

Case Study Design

A case study design develops an in-depth description of single or multiple cases. Case studies allow a researcher to act as a social scientist. Case studies are often seen in legal, healthcare, and political science industries. Mfinanga et al. (2019) also supported that case studies are more commonly utilized in medical and psychology research. The premise for utilizing a case study or multiple case studies is, to begin with, a specified case. A case can be considered an individual, a group of individuals, or a region. If cases support a common theme, multiple case studies can be combined to create an additional basis for research. Clare (2022) also proposed that case studies allow consideration of a particular circumstance from the standpoint of the individuals involved. When conducting a case study, a researcher can also focus on a particular procedure or event of a specific type.

Glette and Wiig (2022) explained that within case studies, there are several types of case studies: (1) single instrumental case study, (2) intrinsic case study, and (3) collective case study. A single instrumental case study is defined exactly as it is labeled, one area of focus or problem for the researcher. In contrast, a researcher leverages an intrinsic case study to focus on the case. The collective case study is another term for the multiple case study. Whereas the researcher is still attempting to research a particular problem or topic, the researcher will select several cases to fully reflect the varying perspectives on a given topic. Tomaszewski et al. (2020) proposed

that five rationales exist when selecting a single case study over a multiple case study. The cases may be critical, unusual, common, revelatory, or longitudinal. However, in contrast to multiple case studies, there is a commonality among the cases, allowing the researcher to analyze and find targeted variables replicable or transferable to similar contexts.

According to Glette and Wiig (2022), the advantage of leveraging a case study is the ability to investigate complex social phenomena and handle a dense amount of data. In contrast, the disadvantage to using a case study is defining the case, and the large variety in the description can be difficult for the novice researcher. However, healthcare is a complex field with many stakeholders and nuances in the operational workflow. The case study design is appropriate for the research of revenue cycle management as the researcher wishes to understand the circumstances involved in the process from the viewpoint of all the key stakeholders.

Narrative Design

The narrative approach explores the life of an individual. A researcher utilizes this design when attempting to understand a person's everyday experiences from the story they tell and is particularly in tune with an individual's personal, social, and historical context (Clare, 2022). Although the researcher can study the life of one individual, the narrative design can also focus on a group of individuals. The basis for the narrative design is rooted in anthropology, literature, history, psychology, and sociology.

When considering the narrative design, the researcher must determine whether one or more individuals can explain the research problem. Analyzing individual stories, culture, and historical context can be a rewarding methodology for research. However, there are also challenges within the narrative design. Information research can be an extensive and challenging

approach for a novice researcher. Issues can arise when sorting through the collection, analyzation, retelling the story, and clearly defining the research.

Ethnography Design

Ethnography focuses on the cultural influence of a group. Ethnography design is further described by Clare (2022) as learning from people rather than studying them. Ethnography's essential core concerns the meaning of actions and events to the people we seek to understand. According to Clare (2022), ethnography has its roots in anthropology, which seeks to "make the strange strange and the strange familiar." A positive component of ethnography is the ability to change the course of research from what appeared to be the truth into research that is even more true.

Borman et al. (1986) described a contrasting view that the researcher is the research tool within qualitative research, specifically ethnography design. All the data collected through the ethnographic design is filtered through the researcher's perspective, posing a challenge in excluding personal bias from data collection, analysis, and interpretation of the data collected. Borman et al. (1986) further explained that a successful ethnographic researcher must not manipulate or control the phenomenon under study. The solution to the challenge is to do good research and be mindful of forming a biased opinion throughout the research process.

Tomaszewski et al. (2020) summarized the narrative design process in several steps. The overarching goal is to describe the stories people tell about their lives. When the researcher formulates research questions, the basis is to discover the story of the lived experience. An example of a sample population is finding people who contribute to the story of the experience. In the data collection phase, the researcher performs one-on-one interviews in which participants

tell a story about their experiences. The data analysis is set in a narrative format, as the key criterion of narrative research is storytelling.

Although healthcare contains elements of culture in the workplace and a large group of individuals, ethnography design is not the best choice for the research platform for revenue cycle management. One could argue that seeking to understand the meaning of actions of people within the revenue cycle process could be conducive to ethnography is the most appropriate research design; however, revenue cycle management is also inclusive of workflow processes and contains a vast array of actors in which ethnography design would be counterintuitive to the research process as the outcome is not intended to focus on how people tell their story or the relationship that those stories have within history.

Phenomenology Design

The phenomenology approach seeks to understand the root cause or essence of the phenomenon in question. Clare (2022) further proposed that the phenomenology approach describes the experiences and reactions of the researcher by describing the viewpoints of what happened, what in the current circumstances and in your way of knowing influenced your experience, and what was essential to your experience and any change you experienced. This design is not appropriate for the research of revenue cycle management as the researcher's record of personal experience is not pertinent.

Grounded Theory Design

Grounded theory is the development of a theory derived from simultaneous data collected from the field and analysis with ongoing construction and reconstruction of conclusions based on emerging themes. Clare (2022) further described grounded theory can be the basis of qualitative and mixed-method approaches. This method is also not appropriate for the research of revenue

cycle management as, technically, themes are not essential to fulfilling the research requirements of the proposed questions.

The qualitative method with a case study design, specifically a multiple case study design, is the appropriate research for revenue cycle management. Mfinanga et al. (2019) proposed that the case study design helps derive new hypotheses regarding a process. A qualitative approach is most appropriate for the revenue cycle management process. Using open-ended questions based on the research questions, the researcher was able to increase the understanding of the organization's actions contributing to efficient or inefficient revenue cycle management processes. These open-ended questions discovered the differences between non-profit and for-profit healthcare entities. The case study research design was the most appropriate for this study to fully explore theories pertinent to revenue deficits because of possible inefficiencies in revenue cycle management.

Summary of the Nature of the Study

Despite the continued interest in healthcare reform, revenue cycle management faces gaps in healthcare financial research. According to Holyoak (2017a), most healthcare entities and physician clinics would allege they have a denial management program; however, data reveals that as many as one in five claims for services rendered are either denied or delayed. Revenue cycle management to date contains gaps due to the siloed process. This qualitative analysis explores the financial benefits of an effective revenue cycle management process.

Potential leakage points resulting in revenue deficits are common in revenue cycle management. These issues have raised concerns regarding the actions of organizations and the effectiveness of revenue earnings. According to Leidwinger (2018), the revenue cycle management process is one primed for improvement, as poor billing practices can cost millions

of dollars in lost reimbursement. This study was conducted with a flexible design using qualitative methods, specifically, a single case study to explore the organization's actions and status in the revenue cycle management process through research, and interviews.

Conceptual Framework

The conceptual framework of this qualitative research is the foundation for the researcher to explore the problem statement and the research questions. Leveraging the conceptual framework allows the researcher to link the study to existing revenue cycle management research and how the selected theories or concepts relate. The three driving concepts of the research are value-based reimbursement, revenue deficits, and revenue integrity. The supporting theories for the research are continuous process improvement, strategic management, and transformational leadership. The linking of all the concepts and theories attempts to define the complexities of revenue cycle management in a structured manner.

Concepts of Revenue Cycle Management

Value-based Reimbursement

Value-based reimbursement is the overarching concept in revenue cycle management. The shift from a fee-for-service reimbursement platform to a value-based reimbursement model is a billing transition within the revenue cycle management process. According to Barnes (2017), this transition in revenue cycle management is one of the "greatest financial opportunities for physician practices." Fee-for-service is based on unbundled payments and quantity, whereas value-based reimbursement focuses on quality metrics and allows the healthcare provider to focus on patient care. Understanding this concept is vital to identifying leakage points in the revenue cycle management process to reduce financial losses.

Value-based reimbursement focuses on areas of opportunity within healthcare, such as rising healthcare costs and the potential for poor quality. It is intended to incentivize practitioners to transform organizational change. Terrell and Julian (2020) further explained the root cause for the change toward value-based reimbursement is based on the current trajectory of healthcare spending. Based on current spending, the estimated cost of healthcare by 2035 will amount to a total that is more than all of the other taxes and revenues collected. Continuing without change, it is estimated that by 2080, taxpayer-funded healthcare will equal all of the U.S. governmental revenues. Were healthcare to encompass all the governmental revenues, then all other segments, such as defense, roads, and education, would necessitate borrowing to function.

Slater et al. (2022) further explained the migration of many physicians from independent practice to joining larger physician groups or becoming employed with a hospital system due to all the legislative changes coupled with reducing fee-for-service reimbursement from insurance payers. Although the value-based approach allegedly focuses on quality and improved care for the patient, one concern of the changing paradigms is the impact on the evolving compensation models for physicians. Value-based contracts open a variety of challenges to hospitals and independent clinics considering how to make changes to physician compensation while remaining financially viable. Options include a mix of fixed salaries, value-based bonus metrics, a combination of quality metrics, and continued productivity incentives. The additional challenge is aligning strategic goals with the physician compensation model within the value-based model for positive outcomes in patient care, financial stewardship of an organization, and physician satisfaction.

Revenue Deficits

An additional concept of revenue cycle management is the concern of revenue deficits. Healthcare reform includes cost reduction, quality improvement, and new initiatives in reimbursement for hospitals and provider clinics (Maddox et al., 2019). Legislative changes to control healthcare costs force revenue cycle managers to focus on inefficiencies to salvage reimbursement revenue.

Revenue deficits also can exist within the physician compensation model changes created from the value-based model. Slater et al. (2022) described the pitfalls of implementing new compensation plans. Hospital departments and physician clinics must budget appropriately to avoid unanticipated losses if the new implementation does not produce the anticipated outcomes. Reviewing the current state compared to the anticipated future state is necessary to review changes in workflow. When moving from a pure production platform of fee-for-service to a value-based approach, leadership must monitor any decrease in patient visits or encounters. Slater et al. (2022) further recommended that institutions plan for these potential side effects to absorb some of the loss while adjustments occur. However, institutions or smaller independent clinics may not have the financial wherewithal to withstand reduced volume, creating additional revenue deficits to an already tight margin.

Wilensky (2018) shed another perspective on the legislative changes attempting to move away from the reliance on the resource-based relative value scale (RBRVS) and the sustainable growth formula (SGR) for physician reimbursement. The first layer of the value-based transition was to institute incentives and financial risk to physicians. Legislative rules incentivized physicians to participate in an advanced alternative payment system. Also, the Merit-Based Incentive Payment System (MIPS) initially combined three existing quality programs of

Physician Quality Reporting System (PQRS), the Meaningful Use program for electronic health records, and the Value-Based Payment Modifier. Physicians who did not participate in any transition version faced potential penalties. However, there are exceptions to every rule. Physicians who fit the definition of low-volume or low Medicare Part B payments were excluded from the program. The initial criteria were less than 200 Medicare patients or less than $90,000 in Medicare reimbursement. Wilensky (2018) further detailed that while quality is allegedly the focus, the cost to physicians could create additional revenue deficits.

Revenue Integrity

The final concept of revenue cycle management is implementing a revenue integrity program. According to H.F.M.A. (2019), a revenue integrity program aims to bridge between clinical operations, coding, and business office teams. Lack of communication between the teams allows for potential leakage points and potential loss of revenue.

Revenue integrity typically consists of a multi-disciplinary team to focus on actions, outcomes, compliance, and metrics to ensure revenue dollars are appropriately charged and collected. In healthcare, revenue integrity is also the basis for ensuring that what is charged as a cost to a patient or insurance payor has the clinically appropriate medical documentation necessary to support the charge. Kuenzle et al. (2019) explained in further detail that hospitals and physician clinics face a common challenge in managing claim denials based on problems with prior authorizations. The denials or impact on payment can occur when changes in the treatment plan occur within the medical documentation. These changes were not communicated back to the authorization team members. The error in the workflow has a poor outcome as patient care is delivered, the expense occurs through the continuum of care, and the claims are denied, leading to lost revenue for the hospital and physician. A revenue integrity program and

team create the first attempt to collaborate across the complex actors within the patient care process.

Theoretical Framework

Continuous Process Improvement Theory

Matthews and Marzec (2017) proposed leveraging continuous process improvement at several organizational levels. C.P.I. is closely aligned with Lean Six Sigma. Leadership can find a plethora of consults, companies, and educational opportunities to incorporate lean processes within their organization. Ultimately during the use of lean processes, C.P.I. is utilized to keep a pulse on ongoing opportunities for improvement and change. The necessity of healthcare to focus on improving operational processes is essential to find methodologies to combat all the complexities of revenue reimbursement and the potential for revenue deficits.

Ahn et al. (2021) suggested the use of lean management within healthcare organizations attempts to empower staff to generate continuous improvement through incremental but regular improvements in work processes. These processes can include but are not limited to methodologies within supplies, medication administration, interdepartmental patient care transition, medical documentation, and software system applications. C.P.I. is an attempt to alleviate the increasing pressure on healthcare organizations to improve quality care and patient outcomes while balancing cost containment.

Sunder and Kunnath (2020) described the use of C.P.I. molds efforts to advance performance and guide improvements in workflow processes. Revenue cycle management can leverage C.P.I. as a possible methodology to monitor workflow processes between operational and finance teams while monitoring reimbursements for the service lines. C.P.I. can also focus on one revenue cycle management element or inefficiency throughout the entire flow. However,

Sunder and Kunnath (2020) also cautioned that strong generalizations for using lean Six Sigma and C.P.I. are not advised. Although there are some positive outcomes for using lean, due to the complexity of healthcare and the potential of a barrier or break in the process in multiple places, the use of lean would need to be addressed at various levels throughout the workflow process. Ahn et al. (2021) explained strategic management as a core foundation for implementing improvement projects.

Strategic Management Theory

Strategic management theory is the systematic approach or tools organizations use to allocate resources to meet goals and objectives. According to Höse et al. (2022), strategic management evaluations are highly relevant in the early stages of business model development. One could also argue that strategy is also relevant to organizational sustainability. A sustainable business model described by Höse et al. (2022) achieved economic viability and creates value for the company, customers, and other stakeholders. The similar themes between healthcare revenue cycle management and a sustainable business model appear to validate that strategy is key.

Pfeffermann (2019) advised that healthcare policy and procedure improvement require leadership to consider strategic management solutions. Leaders must overcome the fear of change, embrace the best solutions for revenue cycle management and continuous process improvement, and find ways to collaborate more effectively. Often battling the cultural mentality of historical workflow processes that appear efficient versus a new approach to increase efficiencies impedes the process. Change management requires a strategic plan inclusive of all key stakeholders.

Foss et al. (2022) described strategic management theory that has evolved over the years until further developed by Henry Mintzberg. Mintzberg proposed a process approach to strategy

that was adaptive, bottom-up, and based on dispersed knowledge and learning. However, Mintzberg's strategy is rooted in organizational theory. One could argue that organizational theory and strategic management theory are closely intertwined. Mintzberg has been noted for the five P's in strategy. The first step is the creation of a plan. The plan should be made before possible actions are taken. The creation of goals is made within the plan. The next step is notating the pattern, where planning is about the intended strategy and being self-aware of previous strategies that have been implemented prior. The third element is the organization's position in the market, the definition of the organization's identity, and the measurement against competitors.

Additionally, strategy is also about the larger perspective. An organization must be aware of its target audiences and customer base. An organization must also be self-aware of internal customers such as employees. The final component is the ploy. An organization can use a decisive strategic decision to create a ploy for action competitors did not anticipate, which helps the organization rise above the competition. Technically one could use this theory in healthcare; however, the complexity of the industry may present a challenge in creating a strategic plan.

Terrell and Julian (2020) proposed within healthcare, proven models for success and adequate infrastructure are in limited supply because the capabilities involving strategy, people, process, and technology required are not intrinsic in current healthcare organizations to handle the change from fee-for-service to a value-based strategy. Furthermore, with the continuous movement from governmental and commercial payers to the value-based reimbursement model, Terrell and Julian (2020) stated that 95% of health provider organizations in the United States have little to no strategy for moving to the model.

Strategic management is developing a plan for revenue cycle management and

reassessing each component throughout the cycle. Within the strategy, it is important to note that financial viability is necessary for continued operational success. Organizations must focus on the strategy best suited for improving revenue cycle management. Managing strategy effectively is inclusive of ensuring leaders understand transformational leadership theory as potential change management will be required.

Transformational Leadership Theory

Milhem et al. (2019) revealed a study that reflects that transformational leadership is essential to employee engagement. Since the revenue cycle process has several actors, employee engagement is crucial to each team member working to their potential. Transformational leadership is also instrumental as leaders lead by example by bridging interdepartmental groups and ideologies. Attempting to leverage transformational leadership throughout the process allows for a fresh perspective on potentially outdated policies and procedures.

Mahmood et al. (2019) had a contrasting approach to transformational leadership. Although in agreement with the correlation between a transformational leader and the influence on employees' creative behaviors and performance, Mahmood et al. (2019) stated that most studies focus on the creative process and outcomes of the creative process, not necessarily the engagement itself. The need to have a holistic understanding of employees' intrinsic motivation is necessary as well. Transformational leadership depends on the managers' influence on an individual employee and interaction with their intrinsic motivation.

Healthcare leadership is broad in scope to encompass administrative, financial, and clinical categories. Transformational leadership should not only consist of non-clinical employees as physician transformational leadership is essential. Healthcare entities cannot see patients without physicians and advanced practice providers, nor can physicians see patients

without the assistance of an administrative team. Umesh Sharma et al. (2020) stated that the evolution in healthcare creates a tremendous need for physician leaders to lead and help with change management. Unfortunately, according to Umesh Sharma et al. (2020), typically, physician-leaders receive little or no formal preparation for leadership roles. Lack of leadership preparation is a potential weakness in attempting a collaborative clinical and non-clinical team approach.

The potential necessity for transformation leaders in the healthcare industry's constantly changing environment dictates ensuring an organization's effectiveness and self-awareness in this aspect. If transformational leaders can leverage the overall strategic objectives while implementing continuous process improvement and engaging employees throughout the process, perhaps there is potential to navigate the revenue cycle management process.

Definition of Actors

Front-end Staff. If one were to picture revenue cycle management as a circular process, the front-end staff is the patient's first contact in the patient care compendium. The staff includes the front-end revenue cycle management work, registration clerks, and prior-authorization specialists. These staff members are essential in scheduling patients, collecting time-of-service payments, and performing insurance eligibility, verification, and authorization (Cascardo, 2018). The entire workflow process may have flaws if any of these components are completed incorrectly.

Billers. Billing staff is versed in insurance payer issues causing denials. According to Romeo (2019), billers are the defensive team when salvaging lost revenue dollars due to insurance denials. Billers scrub claims before submission, work front-end denials before insurance adjudication, and back-end denials after claim submission. Billers are also located

within the middle of the revenue cycle process and often work closely with the coders. Billers will send queries for registration edits back to the front-end staff.

In contrast, they will query coders or clinicians regarding medical necessity or documentation questions. Billers may also play a dual role in payment posting, although a biller's task may be specific to only payment posting. In posting payments, the process is liable if the individual posting does not reconcile expected revenue with revenue received. Reconciliation is an important element of concern within the revenue cycle process. Billers are also instrumental in reviewing accounts receivable reports for attempts at revenue collection.

Coders. Brownfield et al. (2021) proposed that coders are staff in the middle portion of the revenue cycle process. This process occurs after patient registration and after the clinician sees the patient. Coders verify that the medical record documentation supports the provider's level selection, diagnoses, and procedure selection, then file a claim to the payer through the clearinghouse. Coders have on-the-job training or receive certification from the American Academy of Professional Coders or the American Health Information Management Association. Coders often are part of a revenue integrity team.

Insurance Companies. Insurance companies are an extension outside the organization of the revenue cycle management process; however, they play a key role in reimbursement. Dieleman et al. (2020) explained three types of payers: public insurance, such as Medicare, Medicaid, and other government programs; private insurance, most known as commercial insurance; and out-of-pocket payments, or the uninsured. Due to the many changes in payer rules, revenue loss has been a target for health care professionals (Cascardo, 2018). Insurance companies and healthcare organizations are beginning to focus on the quality of the patient.

Electronic Medical Records and Information Technology. Information technology

and electronic medical records are vital components of the financial stability of a health care entity. A study by Hackbarth and Gamble (2017) described how the adoption of I.T. can enable significant changes in how and why an organization can generate revenues. The electronic medical record houses the clinical and revenue details of the patient service. Technology is a core foundation of the revenue cycle process. All actors within the revenue cycle leverage the technology throughout the steps.

Compliance Team. Mattie et al. (2020) explained the field of healthcare compliance continues to grow in complexity. The compliance team requires specialized knowledge to navigate the rules and regulations surrounding fraud and abuse. A compliance team member is typically also on a revenue integrity committee. Compliance also works closely with members of the revenue cycle group for internal and external audits to mitigate as much risk as possible.

Management. Several administrators may be within revenue cycle management depending on the organization's size. Management may consist of finance executives, senior leadership such as chief financial officer, chief executive officer, and various vice presidents, department managers in the hospital setting, revenue cycle managers, and practice managers for the clinics. Barnes (2017) proposed most practice managers remain so distracted by daily operations that they do not have the time or resources to take full advantage of the quality incentive programs available.

Providers. Physicians, nurse practitioners, and physician assistants are essential in documenting clinical services provided to the patient. The providers are responsible for documentation, quality, and care for the patient (Cascardo, 2018). Clinicians are a cornerstone for the revenue cycle process as patient care occurs at this step.

Referral and Authorization. Prior authorization or pre-certification specialists are

integral to the revenue cycle process. These staff members attempt to align the proposed plan of care in conjunction with the patient's insurance benefits. As many insurance companies require medical necessities before certain healthcare services are performed, this role is important in capturing revenue for the healthcare entity (Cascardo, 2018).

Constructs of Revenue Cycle Management

Financial Performance

Lee et al. (2016) highlighted barriers that exist in leveraging effective revenue cycle management, causing an impact on revenue dollars. Financial performance awareness is essential for the economic viability of a healthcare organization. Although Cascardo (2018) stated the financial performance of a healthcare organization is achievable with the new legislation, Wilensky (2018) proposed there are obstacles to adoption due to the cumbersome nature of the request.

Financial performance is measured similarly, but perhaps slightly differently, based on the healthcare organization. Non-profit organizations, as well as for-profit organizations, have key financial reports. One example is the balance sheet review. Berger (2021) explained the balance sheet allows an organization to benchmark against similar entities for evaluation purposes. In healthcare, two of the key financial statistics that are the most useful are debt service coverage and days cash on hand. A review of available cash on hand, if financial performance declines, attests to the organization's overall health.

Berger (2021) also explained the income statement metrics are vitally important in financial performance assessments. Income statements contain key elements such as operating and total margin percentages. These metrics also can be benchmarked against similar entities for performance goals. HFMA (2020) provided benchmarking data for hospitals and physician

clinics to monitor financial performance. Investment income plays an important role for hospitals, especially for non-profit organizations. If managed properly, investment income could offset financial shortfalls, such as during the COVID pandemic.

Corporate Governance

Corporate governance refers to the way a corporation is governed. Based on the business model, corporate governance may be slightly varied; however, most organizations have a board of directors who consider the stakeholder's wishes. The quality of the governance of an organization can impact financial viability. Fairhurst and Nam (2020) determined that managers of firms with strong corporate governance are more likely to make optimal decisions. In contrast, managers in poorly governed firms may make financial policy changes detrimental to shareholders.

One may only consider financial implications when discussing corporate governance; however, compliance is a major factor. A compliance program is a cornerstone for corporate governance. Stacchezzini et al. (2020) described a compliance program as a mechanism that requires all company employees, managers, and directors to be accountable for certain actions and controls based on the organization's overall code of conduct. A corporate compliance program is the cornerstone of the revenue cycle process. Ensuring proper financial controls and compliance with federal and state guidelines would be elements of the program.

Lee (2016) further defined that a coding compliance program within the corporate governance structure helps protect staff against fraud or criminal charges in the event of questionable activity or actions. The four primary objectives of a well-designed compliance program are to: (a) expedite and optimize the proper payment of healthcare claims, (b) minimize billing mistakes, (c) reduce the chance of an audit by governance structures such as the OIG

(Office of Inspector General) or the Centers for Medicare & Medicaid Services (CMS), and (d) Avoid conflicts in governmental legislation with the self-referral and anti-kickback statues. The use of multidisciplinary teams from each area where a compliance concern or risk could occur lends to a collaborative approach within the corporate governance structure.

Revenue

Revenue is the result of the operational and investment activity of an organization. Revenue terms include operating margin, net profit, net loss, and cash on hand. The positive or negative net income is the outcome of revenue cycle management in a healthcare entity. Revenue reflects the financial viability of a healthcare organization or physician practice (Cascardo, 2018). Holyoak (2017a) proposed a negative impact on revenue cycle reimbursement through insurance denials which are not constantly monitored efficiently by leadership.

Revenue can be derived from increased volume, providing complex medical services, and completion of detailed documentation within the medical record. Burks et al. (2022) explained that healthcare is undeniably expensive. Revenue is at risk with inaccurate revenue cycle processes. Inaccurate coding and billing can result in lost revenue and possible legal investigation through an audit. If the audit results are deficient, healthcare entities and providers may face potential exclusion from programs such as Medicare and Medicaid, resulting in further revenue loss. In an outpatient setting, medical billing and coding provide the main source of medical income or revenue.

Almusawi et al. (2019) proposed that although healthcare institutions have a great interest in patients' safety as a competitive edge, there is also increased interest in improving financial performance. Healthcare entities are seeking to improve quality to boost their ability to increase their financial performance. Using lean processes to create a strategy surrounding cost reduction,

capacity utilization, and elimination of non-value-added services is an attempt to find financial stability.

Medical Coding and Billing Process

The medical coding and billing process of the revenue cycle are closely intertwined and within the middle portion of revenue cycle management. Inginix (2021) stated that the medical coding process completes a patient's encounter. The medical coding process consists of correct codes and service levels based on clinical documentation. Medical billing includes charge entry, payment posting, and modifier correction. Depending on the organization's size, an employee may perform both roles of coding and billing. However, larger organizations typically have separate teams of medical coders and billers. Some accredited coding and billing organizations include the American Academy of Professional Coders and the Associate of Health Information Management Association. Employees can receive designations or credentials based on education modules.

Burks et al. (2022) explained the CMS guidelines for coding and billing are inclusive of the *International Classification of Disease, Tenth Revision, Clinical Modification* (ICD-10-CM) along with the Current Procedural Terminology (CPT) and Healthcare Common Procedure Coding System (HCPCS). Misclassifications of diagnosis codes, under-coded or over-coded procedures, and misclassification of documents can cause severe problems that incur denials while impacting revenue. Examples include underpayments, non-payment for services, and take-back based on medical documentation audits.

Burks et al. (2022) proposed lack of education for providers is detrimental to the medical coding process. Clinicians may focus on the ability to treat and care for patients, but the medical complexity of medical coding and the corresponding required documentation is an area of

concern. Documentation is a requirement of CMS to support medical necessity and allows a coder to either chart abstract or review procedural codes selected by a clinician. The golden rule of medical documentation and coding is that the service is not documented; the care did not happen. Documentation is critical to the coding and billing process.

The OIG squarely puts the responsibility of documentation and billing on the physicians' shoulders. Providers cannot relinquish responsibility to the electronic medical record or the medical coders and billers. Jin et al. (2022) expressed that the issue of clinical documentation within the coding and billing process is also impacted by clinician burnout. The use of electronic medical records can be cumbersome. Furthermore, a physician who performs clerical tasks and data entry is a low-value use of a high-dollar resource. Using a team approach to clinical documentation is recommended by allowing clinical staff to document up to their skill set and licensure level. Adams et al. (2002) emphasized the importance of auditing and monitoring medical documentation, billing, and coding practices on a routine basis to lessen billing errors and achieve compliance within a practice. In addition, this article points out that E&M guidelines change frequently, and the physician needs to stay up to date on these changes to support proper documentation for accurate coding and billing.

A.R. Management

Revenue in healthcare entities is managed within the accounts receivable process. The outstanding revenue dollars owed to a healthcare entity are housed within the accounts receivable analytics. Accounts receivable management is also a key performance indicator of revenue cycle performance. Reporting contains patient responsibility accounts once the insurance company has paid its portion. Reporting also contains outstanding dollars owed to the entity awaiting claim adjudication. Healthcare entities must deal with multiple payers, unique

rules such as bundled payments and fee-affecting modifiers, case-based payments, copays, and contractual allowances (Hernandez, 2017).

The accounts receivable management process involves staff collecting payments from patients and insurance payers. The accounts receivable component of any health care organization is vital to the level of potential profitability (Shorr, 2015). Unlike other service industries, health services and patient care are available before payment. The provider then relies on the reimbursement from the insurance company and the patient's intention to pay.

Per Medical Group Management Association (M.G.M.A.), the cost to rework a denied claim is approximately $25.00 per claim. Additional impact results because 50% to 60% of denied claims are not reprocessed for payment due to time issues, lack of knowledge, or understanding, resulting in lost revenue (Inginix, 2021). The denial management or denial prevention process is an action an organization can analyze for revenue impacts. A healthcare entity must be mindful of barriers to account receivable management.

Bad Debt and Collections

One of the most significant revenue impacts of the revenue cycle management is accounts for non-payment. Bad debt can represent up to 15% of lost revenue (Inginix, 2021). Monitoring bad debt and collection policy is an action to be analyzed during the revenue cycle management process. With the increase in high deductible plans for patients, there is a corresponding increase in the need to collect on self-patient or patient responsibility accounts. With increased patient responsibility comes the potential increase in non-payment, leading to the use of collection agencies and bad debt write off for organizations.

Shoemaker (2019) reported bad debt expense in healthcare entities nationally has increased by $617 million to nearly $56.5 billion between 2015 and 2018. Not only is the

inability to collect a reason for the increase in bad debt, but one root cause is the increase in inflation. Although there is an increase in bad debt collections compared to the overall percentages of gross charges, less was written off as bad debt expense in 2018 than in 2015.

One drawback to the healthcare industry is the burden of financing patient responsibility accounts. DeSoto (2017) further explained the healthcare industry as one that prohibits patients from receiving care and denies business to patients whose credit is not good. The main purpose of the healthcare industry is to provide quality care to the patient and allow the patient to return to the normal activity of daily living. However, healthcare services are often expensive with or without insurance, and the patient becomes the debtor to the healthcare entity. DeSoto (2017) further demonstrated statistical data revealing that bad hospital, pharmacy, and medical practice debt amounts to $120 billion annually or 4% of all healthcare spending. Options to handle bad debt are to leverage the services of a bad debt collection agency. Another alternative is to sell the accounts receivable and bad debt to a purchasing agency to alleviate the burden of collecting revenue. Collections are the last defensive line for revenue collection for a healthcare entity's profitability.

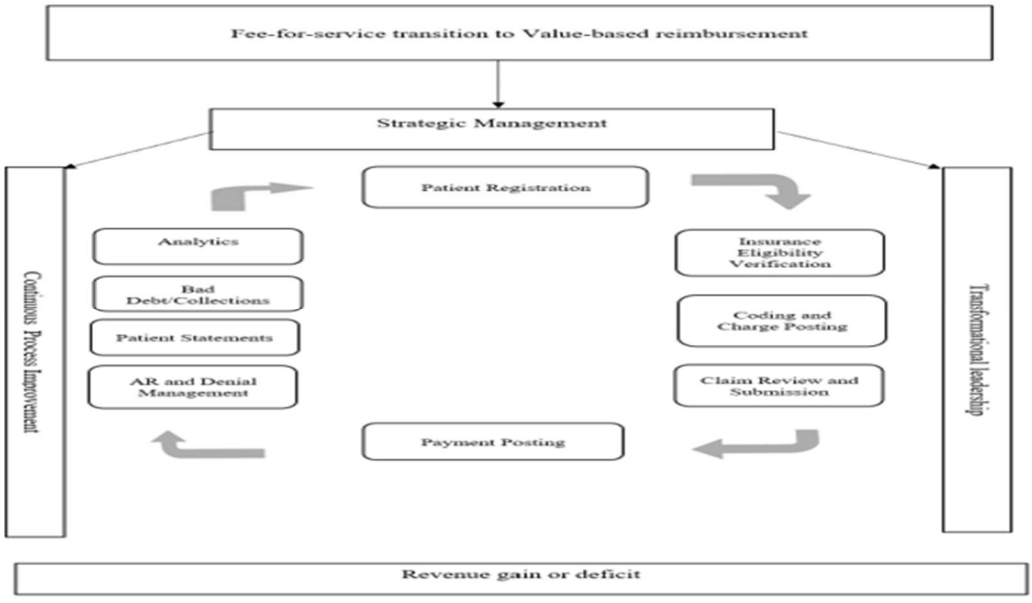
Relationship Between Concepts, Theories, Actors, and Constructs. When reviewing revenue cycle management and the relationships between all the levels, one must first approach this topic from the 30,000-foot strategic viewpoint like a chief financial officer. Senior administration is typically current on governmental legislation changes that could impact the organization's financial viability. The overarching concept is the innovations and reforms of a complex U.S. health care system utilizing the legislative change from fee-for-service to value-based reimbursement (Dieleman et al., 2020).

The changes in legislation cause a domino effect in strategic management changes to create viable workflow throughout the middle management to front-line staff to adapt to the changes. Within that strategic plan, picture an umbrella covering the entire process with dual coverage in the form of continuous process improvement with transformational leadership. Leveraging engaged leaders and front-line staff who perform the work creates a model of potential improvement.

Underneath the central concept and theories, the umbrella is the detailed processes, people, and workflow that can succeed or fail. Revenue cycle management is essentially a circle workflow process. It begins with the patient's registration and moves through the entire process, resulting in either a revenue gain or a deficit. Figure 1 below demonstrates the overarching concepts and theories while reflecting the internal circle flow of revenue cycle management.

Figure 1

Revenue Cycle Management Flow



Summary of the Research Framework

The complexity of delivering quality healthcare while balancing revenue integrity and financial viability requires an examination of the forces that affect change within the hospital organization and physician practices. Implementing a revenue integrity program focusing on revenue cycle management involves healthcare leaders and team members facing the challenge of silos and inefficient processes (Brownfield et al., 2021). Understanding the revenue cycle components and then focusing on denial management enables better opportunities for financial viability, leading to fewer revenue deficits.

Definition of Terms

Denial management and prevention program: A denial management and prevention program is a best practice for mitigating financial risk by implementing data analytics in previous claim denials to install proactive steps in prevention (Bowman et al., 2019).

Key performance indicators: KPIs are financial benchmarks that help leadership and staff monitor a healthcare entity's financial health or practice. KPIs also assist in setting goals for improvement purposes (Cascardo, 2017).

Revenue cycle management: Revenue cycle management refers to the business side of a healthcare entity or physician practice, including, but not limited to, all administrative and clinical functions that contribute to the capture, management, and collection of patient services revenue (Cascardo, 2017).

Revenue integrity program: A revenue integrity program is a group of key stakeholders who create a program with the central goal of congruous clinical and operational workflows that produce accurate charge capture the first time without repeated edits (H.F.M.A., 2022).

Value-based payment: Wilkinson et al. (2008) denoted that the U.S. health system suffers a quality deficit in part that patients do not get the preventative care and primary care services they need. Value-based payment requires Medicare (C.M.S.) to move toward reimbursing healthcare entities and providers based on clinical outcomes and value (Wilensky, 2018).

Assumptions, Limitations, and Delimitations

The premise of the qualitative research study for revenue cycle management contains assumptions, limitations, and delimitations. As this study is qualitative, assumptions of participation are necessitated. The study's limitations are steeped in the very nature of the participants. The delimitations help narrow the focus of the research to a specific area and target population.

Assumptions

Assumptions in qualitative research begin with searching for an understanding of the whole (Kornuta & Germaine, 2019). Leedy and Ormrod (2019) proposed that assumptions serve as the foundation of any proposed research and constitute "what the researcher takes for granted. But taking things for granted my cause much misunderstanding." In this study, I assumed physician practice managers, hospital executive staff, and support staff would be willing to participate while providing their opinions as truthfully as possible. Leedy and Ormrod (2019) continued stating within assumptions, and there is the understanding that each participant will be truthful in depicting their personal opinions and not those of another regarding the provided situations. The researcher must also provide a safe environment, ensuring anonymity and confidentiality are preserved for the participants to express their true opinions. The second assumption of this study was that the participants would be knowledgeable about revenue cycle management, financial viability, and operational aspects of barriers and success to revenue.

Leedy and Ormrod (2019) stated the researcher must explicitly document the research assumptions to help reduce misunderstanding and resistance to the proposed research, as it will demonstrate that the research proposal has been thoroughly considered. The last assumption was that the participants' experience from their perspective of revenue integrity, revenue cycle management, and operational workflows would describe the explored phenomenon in the case study and make a sincere effort to complete the assigned tasks. Ellis and Levy (2008) cautioned that assumptions must be articulated, or evaluators may raise some valid questions regarding the proposal's credibility.

Limitations

Kornuta and Germaine (2019) proposed limitations in identifying potential study weaknesses from sources outside the researcher's control. Limitations are also restrictions on the extent or type of available data. Limitations may also restrict the generalizability of findings. Because this study is specific to the perceptions of those involved in revenue cycle management, there is the potential for limitations allowing others to replicate the study or expand on the study (Creswell & Creswell, 2005). Potential limitations of this study could also relate to the study's sample size, volunteers who may withdraw from the study at any time, or finally, a member of the expert panel may not be truly representative of an expert opinion related to the subject of revenue cycle management. To mitigate the impact of limitations, the researcher can attempt to select a large enough sample size to compensate for any loss of participants. Additionally, in the subject matter expert selection verifying credentials and years in the industry may compensate for any limitations in the research results.

Delimitations

Delimitations address how the study will be narrowed in scope by the researcher. Delimitations form boundaries that the researcher chooses to make the study more focused or manageable (Kornuta & Germaine, 2019). To make this study manageable, I will limit the study participants to practice managers of provider clinics, hospital executive staff, and key actors of the operational components of revenue cycle management. Working directly with practice managers from independent and hospital-employed clinics is to find any significant comparisons and contrasts in operational flow impacting revenue cycle management. Working with the hospital executive team is due to their administrative position. These leaders can approve or disapprove of adopting a revenue integrity program and changes in operations that may or may not impact revenue cycle management. This study will include an in-depth study and exploration of the decisions used to determine the adoption of a revenue integrity program and revenue cycle management operational decision-making within the Northwest Georgia region. All other healthcare specialties and entities were excluded from this study.

Significance of the Study

This research may fill a gap in understanding by explicitly focusing on healthcare providers in physician clinics in the Northwest Georgia region. This study is unique because it will address the under-explored topic of how implementing a revenue integrity program improves the revenue stream for healthcare providers. Past research demonstrates areas of focus within revenue cycle management but fails to focus on the revenue integrity strategy in physician clinics.

Reduction of Gaps in the Literature

The implementation of a revenue integrity program supports the needs of various stakeholders, including physicians, advanced practice providers, clinical staff, insurance companies, revenue cycle management teams, and leadership. The implementation also supports the need for claim denial prevention and management (Bowman et al., 2019). This study reflects poorly managed or no implementation of revenue integrity programs, limited access or understanding of complex billing rules, siloed effects of operational teams, and ineffective processes utilized by members within revenue cycle management. Another barrier to the adoption of quality is the impact of physician incentives from a work-relative value unit productivity-based model to a fixed salary, value-based, or pay-for-performance structure. The original intent of the wRVU metric was to quantify the effort required to perform a particular healthcare service compared to other healthcare services. The wRVU metric was also designed to determine resource consumption and cost estimates for financial forecasting in healthcare service line changes in facilities and physician clinics. However, as the wRVU is not a measurement of quality, pressure is applied to clinical and administrative leadership to focus on the development of metrics that better align incentives for clinical, research, and educational activities with strategic and institutional goals (Slater et al., 2022).

This study explored the solutions to be implemented to reduce the gaps between a revenue integrity program and insurance claim denial management and prevention to reduce the negative impact on financial viability while understanding the partnership and collaboration needed throughout all key stakeholders of the process. With the complexities of healthcare, there is not a simple solution but a myriad of possibilities to consider. Healthcare is a partnership between physicians and administration, for without one, the other cannot success in providing

healthcare services to the patient population. Barriers to quality care and service to patients can impact revenue cycle management. One must understand the barriers to assist with the creation of a strategy to implement change.

Implications for Biblical Literature

Healthcare is a service for the well-being and healing of patients. In Jeremiah 33:6, the Bible states, "Behold, I will bring health and healing, and I will heal them and reveal an abundance of prosperity and security." As a part of the healthcare industry, the ability to afford healthcare services from the patients' perspective and be financially viable from the business perspective.

To conduct business research from a Biblical perspective, one must address the qualities needed for this process. According to Fambro (2016), the three following attributes are necessary: a supernatural calling on the researcher's life; engagement with God on what to research, the research, and further research; and the worldview based upon Biblical principles. Without these qualities, a researcher is the same as any other business researcher seeking answers.

A Biblical approach to research is to view the qualitative study as a work to be made. Keller and Alsdorf (2016) advised that "work is not a thing one does to live, but the thing one lives to do." Through work and research, a researcher can fully express the medium he offers himself to God. Fambro (2016) accurately described the main clarifying point: a researcher must base their research and work not on the world's values but on a value system outside this world. The Bible also supports this statement in John 17:16 when Jesus stated, "they are not of the world, even as I am not of it." Christian researchers should seek biblical accountability as a part of their findings.

This qualitative research study found methodologies of good financial stewardship, the reflection of Christ's love in service to the patient for their health and financial well-being, and care for the associates themselves as they care for others. Revenue cycle management is the method of caring for patients and providing a service of love and compassion. Often patients seek medical care because it is a necessity to live. According to Keller and Alsdorf (2016), all work has dignity as work reflects God's image in us as we provide service to others. In healthcare, we can honor God by loving and servicing our neighbors through our work. Physicians not only practice medicine to relieve suffering but also to create a financially viable career path. Financial leaders can also reflect compassion and acts of love in honor and service to God.

Another biblical aspect of revenue cycle management is financial stewardship for the organization and the patient. 1 Timothy 6:10 states, "For the love of money is the root of all kinds of evil. Some people, craving money, have wandered from the true faith and pierced themselves with many sorrows." Those within the revenue cycle management process must be competent, fair, and honest.

Benefit of Business Practice and Relationship to Cognate

The degree I pursued was in business, with a finance cognate. The company's core contains the strategic initiative to create a profitable revenue flow to continue to operate. The healthcare service industry needs to balance quality care from the patient's perspective and remain financially viable from the business team's perspective while also supporting physician compensation models and associate satisfaction.

The ability to realize the impact of employee engagement is also of financial benefit to an organization. Milhem et al. (2019) proposed that employee engagement can be a key driver of an

organization's business success. Employees can be described as all parties employed by an entity and, in the revenue cycle management research, are inclusive of senior leadership, employed physicians, managers, and front-line associates of clinical and non-clinical backgrounds. One may initially think finance is the data analytics only of the business enterprise; however, financial operations are inclusive of a holistic approach. Milhem et al. (2019) proposed that a leader must contain qualities such as emotional intelligence, transformation leadership style, and effective communication.

One aspect of revenue cycle management focuses on insurance denial management and prevention to improve hospital and physician practice revenue and financial performance (H.I.M. Briefing, 2018). The role of finance relates to the proposed study in terms of efforts to improve the financial viability of physician practices and healthcare entities. The degree relates to the focus of the study by understanding the administrative and operational roles in addressing the problem of revenue cycle management. The issues in the study, such as the lack of implementation of a revenue integrity program, possible inefficiencies within the revenue cycle management, and understanding of complex legislative and billing rules, address the financial concerns and viability of the healthcare entities. When combining all elements of a holistic business approach and combining with the foundation of knowledge of the finance cognate, the key elements of finance, business, and human resource development, and emotional intelligence provide a well-rounded experience.

Summary of the Significance of the Study

This qualitative case study analyzed the importance of a revenue integrity program. The complexity of the healthcare arena indicates the need for additional research on the revenue cycle management process and possible barriers throughout financial operations. Healthcare is

repeatedly noted to be complex. As such, healthcare compliance is also complex in the rules and regulations. Healthcare facilities and physician practices are necessary to provide quality healthcare to patients who need the services. In the meantime, healthcare facilities and physician practices are also a business that needs to maintain a viable financial bottom line. The disconnect between reimbursement and expenses is significant in the study to find areas of opportunity for improvement. Emphasis on understanding actions within the organization allows for an improved understanding of potential revenue deficits within the revenue cycle management process.

This qualitative analysis focused on the critical points of a revenue integrity program and revenue cycle management components. The first concept is to understand any actions leading to potential leakage points within the revenue cycle process. Understanding the overarching leadership, strategic, and continuous process improvement theories open the possibility of finding avenues of efficiencies or barriers to success. Understanding the barriers of lack of adoption from a fee-for-service to a value-based reimbursement system is important to measure the impact of the revenue cycle management process and the necessary collaboration between administration and physicians. Analyzing the potential impact of governance processes, such as non-profit versus for-profit, will also assist with potential obstacles to revenue reimbursement.

A Review of the Professional and Academic Literature

This academic literature review explored the inefficient adoption of a revenue integrity program within the revenue cycle management process resulting in a revenue deficit for healthcare providers. A review of the academic literature provided a greater understanding of the complexity of revenue integrity adoption and implementation and exploration of strategies related to revenue integrity based on the impact of legislative changes. An in-depth study of

scholarly articles was conducted to determine what organizational actions contribute to efficient and inefficient insurance denial management within the healthcare organization. This literature review also covers strategic management, the continuous improvement process, and transformational leadership theories and how they relate to revenue cycle management and the adoption of revenue integrity. Healthcare revenue cycle management is complex when considering complex payment models, stabilizing revenue cycle processes, optimizing clinical and quality documentation, providing quality healthcare to patients, and developing reimbursement and care delivery models while balancing revenue streams (Barnes, 2017).

A search of crucial terminology relating to the comprehensive body of literature discussed in this chapter includes peer-reviewed articles and journals, healthcare management websites, and academic healthcare websites. Keywords used in the literature review search include, but are not limited to, revenue cycle, healthcare finances, revenue integrity, insurance denials, value-based reimbursement, quality patient care, management of revenue cycle, transformational leadership in healthcare, continuous process in healthcare, medical billing and coding, lean Six Sigma in healthcare, managing a healthcare practice, healthcare legislation, physician incentives, value-based care, fee-for-service. The primary academic databases used include ProQuest, EBSCOHost, and SAGE Journals.

Business Practices

Healthcare is a challenging business model in which a service is provided from a medical necessity standpoint; however, for an organization to remain financially viable, effective business practices are critical to the operating margin. Healthcare faces the challenges of profit margin and patient or customer satisfaction. However, compared to items such as a vacation or luxury purchases, healthcare is typically not a wish list item.

Additionally, changing legislation from governmental agencies is one source of impact on healthcare business practices. The changes in legislation are derived from the status of the United States compared to its global counterparts in health outcomes and expenditures. According to the Organization for Economic Cooperation and Development (OECD; 2021), the United States placed in the bottom quarter of developed countries for life expectancy, having the fourth highest infant mortality and the highest adult obesity rate. The OECD (2021) also proposed that although the United States leads the world in per capita health expenses, poor performance metrics continue to occur. There are several reasons why the United States does not receive the value of the healthcare dollar. Dieleman et al. (2020) described the descent into a complex model stemming from innovations and reforms in the system used to finance health care. Examples include the changes in the federal tax code, which led to the emergence of employer-sponsored private insurance in the 1940s, along with the creation of Medicare and Medicaid in the 1960s. With these changes, the United States has a vast array of employer-based insurance plans, insurance provided by CMS such as Medicare and Medicaid, governmental programs for active and retired military, and of course, the population of uninsured patients. Each payer has various reimbursement models and types of contracts with a healthcare entity. Medicaid plans are state-funded and typically specialized to their respective states and legislative oversight. When combining the legislative changes with the complex payer model, business practices are impacted by the shift in payer practices from the proposed fee-for-service to value-based reimbursement.

According to a Healthcare Financial Management Associate roundtable (2017), modifying revenue cycle operations is challenging because the shift to value-based reimbursement from fee-for-service is occurring relatively slowly. Adoption is difficult due to

the variance in receiving reimbursement based on services provided versus adding quality components. One executive found that optimizing processes and systems while reducing errors and increasing consistency is central to establishing a competitive advantage by leveraging opportunities within the value-based model. The optimization of processes and systems is challenged with barriers such as legislation, misalignment of organizational strategies, and lack of commonality of purpose.

Adoption of the value-based reimbursement model varies based on the preparedness of an organization and the size of the healthcare entity. The value-based reimbursement model challenges smaller independent practices with limited resources. Constraints for the smaller methods can be the ability to afford a software platform for tracking quality metrics and financial performance. Although there are a plethora of electronic medical record systems, the technological intuitiveness of data analytics can vary concerning the cost of the software. According to Sweeney (2019), in 2016, a survey by the research firm, Black Book, found that 90% of small, independent practices were unprepared financially and technologically to implement value-based care. Smaller practices typically are for-profit entities in which a tight operating margin can exist.

Another possible lack of resources in the transition is the skill set of the smaller practice. Talent recruitment and retention may be difficult to obtain a strong knowledge base to facilitate a quality program and monitor anticipated reimbursement. Another facet of this survey predicted that the U.S. market for physician and ambulatory revenue cycle management outsourcing and services by extended business offices would grow to approximately 42% (Sweeney, 2019). The choice in business practices to outsource allows smaller healthcare entities additional resources with vendors who are anticipated to have the skills and knowledge necessary to navigate the

value-based methodology. However, a possible challenge is service cost, leaving smaller practices the difficult choice of navigating value-based care with limited monies and equipment.

In contrast, larger organizations that may be for-profit or non-profit with other resources appear to have the skills and expertise to navigate the value-based process. Larger entities may have additional financial resources such as investment portfolios, donor contributions, or community support. However, based on geographic location and mix of human resource talent, many hospital systems and employed physician practices also leverage consulting experts. These consultants assist with the legislative, financial, operational process, and physician contracting necessary to reap any potential economic gains during the transition to the value-based model. Hiring outside consultants also supports building trust for the healthcare team to ensure strategic financial planning moves in the correct direction.

Additionally, the impact of physician compensation models has variable effects on productivity and quality of care. Slater et al. (2022) revealed that researchers have found differences in the effects of financial incentives between providers. Some providers are internally motivated and will provide high-quality care without financial incentive motivators. Whereas in contrast, other providers will only provide quality if incentivized. Physician compensation models vary throughout the nation. However, a core unit of measure is the work relative unit which assigns a value to the provider's work and is provided by the Centers for Medicare and Medicaid. Within the fee-for-service model that is currently in existence, a large number of contracts are considered to be a productivity base. In this model, physicians receive financial incentives based on their productivity and assigned wRVU goals. There are common workflow processes within the fee-for-service and value-based models.

Understanding how revenue cycle management is organized and structured in the new value-based model in comparison to the fee-for-service process is necessary. Many steps are similar when obtaining data from the patient to file medical claims.

The steps are similar in both a hospital facility and physician practice but with the additional quality component of focus. Cascardo (2018) defined the stages of the revenue cycle as follows:

Front-end steps:

- Patient registration.
- Patient forms.
- Scheduling provider.
- Does the patient have an insurance plan that is participating or non-participating?
- Insurance eligibility and verification.
- Authorizations.
- Co-pays and self-pay collections; and
- Payment plans and payment structure.

Middle steps:

- Billing and claims.
- Claim edits.
- Charge reconciliation.
- Coding and auditing.
- Provider documentation; and
- Insurance issues.

Back-end steps:

- Denials.
- Accounts receivable follow-up.
- Self-pay balances.
- Outstanding copays.
- Collections.
- Contractual adjustments; and
- Payment posting.

Balancing the mission of quality healthcare delivery with the business model in healthcare requires a partnership between clinicians and administrative teams in all healthcare entities. Barnes (2017) proposed that healthcare providers open to running their clinic like a business will adapt and perform well under the MACRA guidelines. Barnes (2017) also suggested that proactive practices that understand the complexity of payment reform initiatives while having the right team and infrastructure in place will be well prepared to thrive moving forward. Monitoring the profit and loss of the facility and physician clinic allows the team to review current business practices and adapt when needed.

One version of support for the business practice for any healthcare practice is through an accountable care organization. Bao and Bardhan (2022) stated accountable care organizations represent groups of healthcare providers responsible for coordinating patient care to improve health outcomes for their assigned beneficiaries under one umbrella. ACOs were developed as a portion of the Patient Protection and Affordable Care Act (ACA) to lower health care expenditures. The formula utilized by ACOs and value-based reimbursement is the value proposition in which value equals the sum of quality and experience divided by the cost of healthcare. Value-based reimbursement aims to increase patient health outcomes, lower

unnecessary service costs, and allow providers and hospitals to participate in shared savings. The participants of the ACO share a portion of the cost savings if the focal ACO reduces expenditures sufficiently below a cost benchmark and simultaneously achieves the minimum quality threshold (McWilliams et al., 2016).

Healthcare entities of any size and regardless of ACO participation, must utilize key performance indicators to determine if the financial and operational initiatives are meeting goals or if areas of concern need correction. Key performance indicators are described as critical indicators of progress toward an intended result and provide a focus for strategic and operational improvement. KPIs are the analytical basis for decision making and drawing attention and focus to areas of the most importance (What is a Key Performance Indicator (KPI)?, .2022). To make revenue cycle management processes as efficient as possible, an organization should leverage business owners to review key performance indicators such as quality metrics, accounts receivable, accounts aging comparisons, days in A/R, and collections as a percentage of revenue (Romeo, 2019).

Leaders, employees, and clinicians can leverage key performance indicators throughout the entire revenue cycle process. Another viewpoint of KPIs is that these metrics are goals for the individual and the organization. KPIs and plans can be decided upon at the department level or as a system goal. Areas of concern are goals not aligned with the strategic objective of a hospital system or a physician clinic. If plans are out of alignment, performance gaps may occur. For instance, if the physician compensation model is geared toward a production-based contract only, requiring a physician to focus on quality appears counterintuitive when the physician may realize an impact on their overall paycheck.

The Problem

The fundamental problem within revenue cycle management is the partial to no adoption of a revenue integrity program. Healthcare organizations and physician clinics may pursue various goals embedded within a revenue integrity program, such as improved revenue capture or accounts receivable management. However, a formal revenue integrity team may not exist (H.F.M.A., 2019). Mattie et al. (2020) proposed that although there are a growing number of healthcare compliance professionals within the industry, formal university-based training for these individuals remains scarce. Within healthcare entities, a silo approach may occur without a formal revenue integrity department or director leading an enterprise-wide effort connecting clinical operations and billing optimization in typically divided areas. Mattie et al. (2020) further advised that the knowledge base within the evolution and complexity of healthcare compliance demonstrates the need for healthcare organizations to hire knowledgeable compliance professionals. These professionals must be competent in navigating through the distinctions of laws, assisting with building a compliant business culture, and creating an effective process to mitigate exposure and loss. Mattie et al. (2020) described competencies that include but are not limited to our knowledge of privacy laws, ability to analyze an ethical dilemma, communication skills, risk management, billing/coding, information management, and financial acumen. For this study, one area of healthcare compliance that must be reviewed is insurance denials.

Insurance Denials. According to a study, Reiner (2018) proposed that insurance claim denials cause significant revenue leakage points for healthcare providers. The study found that out of $3 trillion in total claims submitted, at least $262 billion were denied, which is approximately $5 million in insurance denials per provider. The discovery of root causes of insurance denials may provide insight into revenue leakage points for healthcare providers.

Insurance denials may be in the form of a front-end edit, clearinghouse rejection, or what is termed a back-end denial. Various reasons, including incorrect patient demographics such as date of birth and insurance information, insurance eligibility, lack of prior authorizations for visits and procedures, medical necessity issues, poor clinical documentation, and incorrect use of modifiers, may cause denials. Reiner (2018) also proposed that disparate systems and processes, complex claims processing, and inadequate support for process improvement can cause denials. One example is the variance in payer rules between a hospital system and a physician clinic, such as initiating a prior authorization. Dependent on payer guidelines, a hospital may not be required to obtain prior permission; however, the physician clinic may require prior approval for the physician portion of the billing process or vice versa.

Another example is multiple electronic medical record systems within a hospital system. Suppose the facility, physician clinics, long-term care facilities, and ancillary services have disparate systems. In that case, there is the possibility of lost revenue as the software systems do not always interface well. Without the ability to work through these processes as a cross-functional team, continued denial and loss of revenue will continue to impact the financial viability of both facilities and physician practices (Reiner, 2018).

Bowman et al. (2019) have a contrasting argument in that the financial value of a denials prevention and management program varies directly with the amount of time an organization spends on strategic planning, time, and effort. A 2017 survey returned similar findings: initial denial rates range from 7.5% to 11% of claims. In other words, $1.00 for every $10.00 is at risk for non-payment. According to Bowman et al. (2019), the preferred methodology is to be proactive instead of reactive, which should decrease the amount of uncollected revenue. Challenges are an organization's culture as culture also impacts a denials prevention and

management program. The literature appears to be available for standard best practices and methodologies for health care organizations to follow; however, as Bowman et al. (2019) demonstrated, the execution may be lacking due to internal silos or focus on other areas within an organization's strategic or cultural plan. Another barrier to execution is the impact of regulatory oversight in the insurance claim process. Lack of competency impacts the ability of a healthcare entity or physician practice. Errors increase claim denials and non-payment. Bowman et al. (2019) strongly emphasized HIM professionals and revenue integrity stakeholders are uniquely positioned based on their skill set to be instrumental in a denial prevention and integrity program as the goal of reduced denials translates into more available revenue for patient care.

Although clean claims are ideal, according to denial management best practices recommended by Cascardo (2018), the denial management process of revenue cycle management ultimately routes to the billing staff team to attempt to resolve the denial. The first step is the billing staff's attempt to scrub submissions to prevent denials. However, an attempt to rework the claim to recoup reimbursement is necessary if a denial is received. There is a stark contrast between hospital systems and physician clinics. Whereas hospitals have higher dollar accounts, medical group collections are challenged by the lower-dollar, higher-volume nature of the physician revenue stream.

Denial prevention with clean claims is proposed as the most effective solution to insurance denials. Cascardo (2018) proposed a partnership between physicians and coders for detailed clinical documentation. The physician's role is to provide specific clinical information to accurately capture the healthcare services on the selected service date. In turn, coders should not disregard physician documentation and decide exclusively if a condition should be coded. If discrepancies occur, the best practice is to query the physician and update the clinical

documentation when appropriate. Clinical documentation is also a vital resource and tool for quality measures in the value-based platform. When a physician or provider documents appropriately, the record can reflect all the details needed for claim submission, the continuation of care, and quality review.

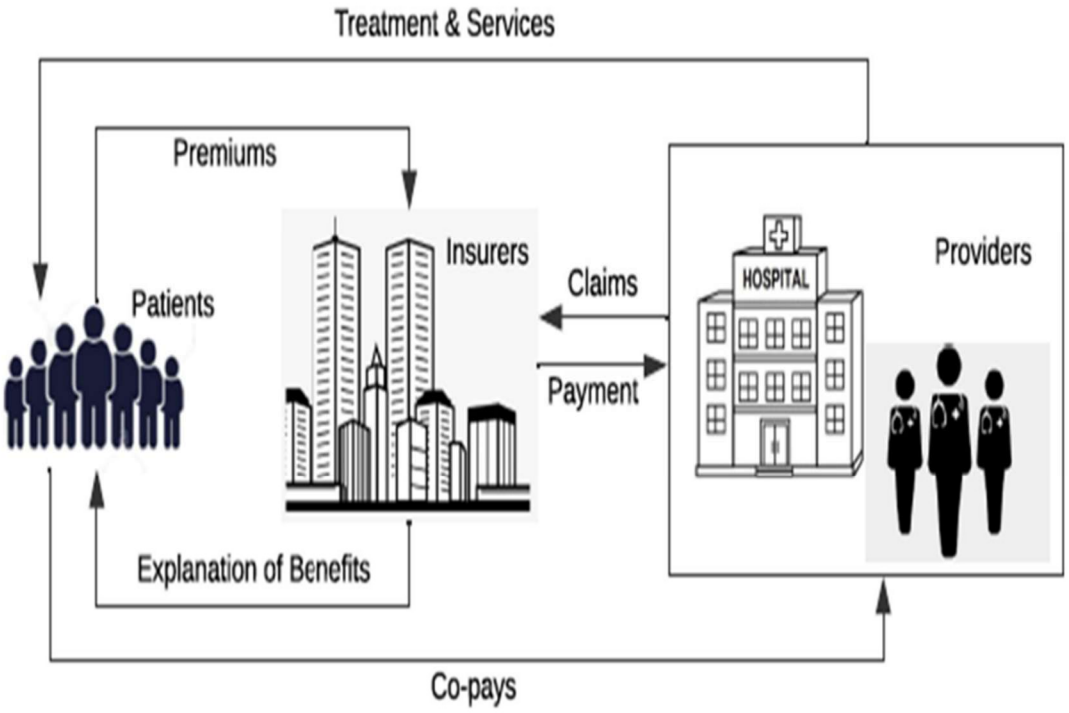
Sunder and Kunnath's (2020) approach is similar to but different from the research in this review. Instead of focusing on internal staff for a denial management strategy, this research focuses on enlisting an outsource company with expertise in claims management and Six Sigma to reduce claims processing errors. Bringing in a third-party expert may eliminate the barriers of allocating blame internally and allow the groups to focus on the problem and the loss of revenue. The organization or clinic must determine the investment return using a third-party expert.

Another avenue recommended for insurance denials is using artificial intelligence to eliminate much of the administrative burden throughout the revenue cycle management process. Johnson et al. (2021) described administrative burdens as the transference of patient records, filling out repetitive duplicate forms, and managing communications with insurance companies through pre-certs, insurance, denials, and appeals. When layering the administrative burden with insurance denials at the approximate rate of 14% denial rate, denial costs include recovery costs resulting in the identification of denial reasons and errors along with correcting the claim form and finally resubmitting a corrected claim. Johnson et al. (2021) provided further statistical data that shows that the recovery rate expense of staff and the process can be estimated as high as $120 per claim. The repeated theme of submitting a clean claim as a recommendation occurs. However, Johnson et al. (2021) further hypothesized that using artificial intelligence adoption programs improved the revenue and reduced costs for more than 62% of executives participating in the study. Artificial intelligence aims to reduce a portion of the administrative burden

throughout the revenue cycle process by leveraging software systems. These software systems can create rules logic that appends modifiers, use appropriate CPT codes preferred by payers, and apply applicable units of measure. A high-level view of the administrative and clinical flow begins with the patient. The patient receives treatment and services, typically using an insurance plan in which the patient or employer contributes to the premiums. The healthcare facility or physician practice providers file the claims to the insurers. The insurer will send an explanation of benefits to the patient explaining any payment to the facility or provider while at the same time allowing the patient to understand any additional out-of-pocket costs. Figure 2 illustrates the U.S. healthcare system and a high-level view of the administrative and clinical flow.

Figure 2

U.S. Healthcare System



Concepts

Several concepts exist within revenue cycle management. The driving force for change is legislative—the most current legislative impact results from the Affordable Care Act and MACRA legislation promoting value-based reimbursement. Within the legislative impact, an additional concept is the lack of adoption or adoption of a revenue integrity program. Based on the healthcare entities' financial initiatives, the third concept is the impact of revenue deficits. When compiling all three ideas into one, one can see the layers of complexity that challenge the delivery of quality healthcare and the receipt of revenue from services rendered.

MACRA Legislation and Value-Based Reimbursement. Nattinger et al. (2018) stated that governmental legislation was instituted because the U.S. healthcare system is described as a fragmented delivery model with misaligned financial incentives that leads to excess expenditures and possible inefficient care delivery. The Patient Protection and Affordable Care Act replaced the former Sustainable Growth Rate legislation with the Medicare Access and CHIP Reauthorization Act, providing a platform for practices with the alleged correct strategic initiatives to capitalize on significant earnings from MACRA's quality incentive programs. However, penalties could also be incurred for organizations without a strategic plan under the new value-based care model (Barnes, 2017).

Barnes (2017) explained that before 2015, Medicare payment rates were determined annually utilizing a calculated sustainable growth formula. This methodology was replaced in 2015 with the next major piece of legislation: the Medicare Access and CHIP Reauthorization Act, or MACRA. Under this legislation, providers had two models or programs in which they could participate to leverage incentive payments. The first model is the Merit-Based Incentive Payment System, whereas the second is the Advanced Alternative Payment model. The

overarching goal for MACRA and the two payment models was to convert Medicare reimbursement monies to the providers from fee-for-service to quality-based payments. In the meantime, however, providers can continue primarily on the fee-for-service reimbursement model. Insurance payers have begun the push for quality metrics resulting in incentive monies for practices and physicians who meet the selected quality measures chosen by the insurance payer.

Jain et al. (2022) described the legislation changes as an attempt for public and private payers seeking to shift financial risks toward the providers of care. The value-based care model is an attempt to reduce the costs associated with fee-for-service and offer an incentive to improve quality care by shifting the accountability to the providers for the outcomes of the patients across the full care continuum.

One component of value-based care is the care management process using evidence-based practice innovations. Jain et al. (2022) further described as federal policies increasingly tie incentive payments to value, the consideration of care management in facilitating better care quality at a lower cost is needed. Care management can be utilized in the form of chronic care managers, typically nurses with the skill set to review a patient's charge and identify gaps in care. Another facet of care management is annual wellness nurses who assist patients and their primary care physician in ensuring all appropriate diagnostic testing is ordered based on the patient's age, risk factors, and family history. Data analytics are imperative to abstracting the data needed to care for the patient.

Value-based care outcomes are defined by data analytics. Analytics is a key link to revenue cycle management and reimbursement. Examples of data analytics for measuring quality care for the facility include but are not limited to patient readmissions and identifying patients

transitioning between care settings. Examples of quality measurements for the physician practice include but are not limited to chronic care management programs to assist with managing patients with high-volume and high-cost chronic diseases. Patient readmissions have a negative financial impact on both the provider and the healthcare facility.

Wilensky's (2018) study argued that the value-based reimbursement model and the proliferation of quality measures significantly burden clinicians. CMS and insurance payers have set the goals and the metrics for quality. The physician is challenged to navigate all the regulations and requirements. Many measures are regarded as poor quality or not, reflecting what is important to patients. In this model, Wilensky (2018) proposed a pilot program to determine if this strategy improves patient quality care while balancing C.M.S.'s ability to perform the claims-payment analytics. The use of an ACO program is one methodology for assisting the physician in navigating the complex rules and regulations for quality metrics.

Even though an ACO program incentivizes providers to deliver high-quality healthcare that is less expensive, the burden on healthcare organizations and physician clinics often needs to trade-off between improvements in care quality and efficient utilization of clinical resources (Jha et al., 2009; Senot et al., 2016). An example provided by Hvenegaard et al. (2011) demonstrated providers may need to reduce staffing levels or lower investments in capital assets such as medical equipment, increase provider workload, and improve clinical resource utilization to improve efficiency. Reduced staffing levels can, in turn, create disengaged employees and burnout among staff and physicians. The limited resources may prevent facilities and physician practices from implementing the quality goals, much less creating a revenue integrity program.

Revenue Integrity Program. Brownfield et al. (2021) advised that revenue cycle management historically maintained a silo effect. Each team reviewed internal efficiencies or

wrote off a patient balance. However, leadership pressure has occurred to break down the silos between the financial and clinical departments, focusing on revenue integrity. When operating in silos, communication is non-existent, feedback is not provided, and root causes and performance improvement do not occur, perpetuating the errors and revenue leakage.

Hospital systems have access to more significant resources than a privately owned independent physician clinic; however, one can stipulate the need to apply revenue integrity to the physician clinic to break down silos and strengthen the overall health system of a community. The National Association of Healthcare Revenue Integrity (2018) proposes core revenue integrity components within the hospital and physician model. Examples of commonality are daily charge reconciliation, completeness of documentation, quality of documentation, and the appropriate use of modifiers.

One case study provided by NAHRI (2018) demonstrated the bridging of silos between a hospital system in Kansas City, Missouri, with its hospital-employed physician practices. The hospital and provider clinics were on disparate electronic medical record systems. One key difference in facilitating the process was launching the physician clinics onto the same EMR as the hospital system while implementing a revenue integrity program. A key concern was facilitating effective communication between the billing team and the physicians. The revenue integrity team created a revenue integrity analyst role that would perform as a chart auditor and physician resource. The RIA function provided education and feedback with attention to documentation, ensuring proper charge capture, RVU allocation, and EM level selection. Through the process, NAHRI (2018) demonstrated the elimination of silos with an outcome that fostered a strong revenue integrity program sharing mutual resources, gained economies of scale, and improved financial and quality results.

Revenue Deficits. Singhal et al. (2018) explained that contributing to possible revenue deficits within healthcare include but are not limited to the increasing demand for healthcare services due to the rising population aging, the growing prevalence of chronic disease, and the overall search for a higher quality of life by patients. The metric for which a hospital or physician clinic measures profit and loss and monitors revenue deficits is through the accounting measurement of "earnings before interest, taxes, depreciation, and amortization, or EBITDA.

EBITDA across the healthcare arena varies based on how healthcare entities have reacted to the shift in insurers' profit pools because of the Affordable Care Act. Singhal et al. (2018) advise that between 2012 and 2016, enrollment in fully insured group plans decreased by 16%, small employers offering health benefits dropped by 24%, and enrollment in Medicare Advantage plans rose by 71%. Finally, enrollment in a managed Medicaid plan increased by 80%. Singhal et al. (2018) further proposeD a substantial upside to reverse revenue deficits for hospital and physician clinics that can deliver value-creating solutions. The data collected reflects that between 2012 and 2016, total overall healthcare industry profit pools grew faster than the combined EBITDA of the top 1,000 non-healthcare-related companies.

A deterrent to the acceleration of increasing EBITDA is COVID-19's disruption of the healthcare sector's profit and loss. In the initial stage of COVID-19, virtually all in-person outpatient visits and elective procedures were canceled from March to May 2020. On average, primary care physicians and practices were estimated to lose $67,774 in gross revenue per full-time physician or full-time equivalent. The national level loss was estimated to be close to $15.1 billion in revenue (Basu et al., 2020). As the nation seeks to stabilize from the pandemic, this is another layer to the complexity of revenue concerns. A physician practice's financial viability

depends on navigating the complexities of healthcare and securing adequate funding to recover from the additional pandemic expenditure burden.

An additional leading form of revenue deficit is insurance denial, also known as a denied payment. Johnson et al. (2021) described an insurance denial as a claim that the insurance payer received, adjudicated, and rejected payment for the healthcare services ordered and performed by a healthcare provider or facility. Each insurance denial is considered a revenue leak or deficit. Although a billing department may recoup the denied claim, the organization must subtract the recovery costs from the patient revenue. According to research, insurance denial recovery costs are $118 per denial. Holyoak (2017a) also estimated that medical denials negatively impact a healthcare entity's revenue and cash flow by an estimated minimum of three percent up to 10% of net revenue. Unfortunately, most denials are avoidable, and although most organizations know how to prevent those leaks, a process is not always in place (Romeo, 2019). Compounding the revenue deficit issue is the ability of a healthcare entity or physician practice to staff appropriately within the revenue cycle management team. Eramo (2022) advised that coupling automation and staffing should be prioritized to create efficiencies within the revenue cycle process. Eramo (2022) continued by illustrating another consideration of a shared services model between hospital and physician services. An example of driving efficiencies and economies of scale would be consolidating leadership, teams, technologies, and vendors across the functional areas supporting the physician and hospital revenue cycle in coding and pre-arrival services. These two areas historically have been siloed, offering many opportunities for efficiency. In the siloed approach, there are no economies of scale for shared staff, redundant processes, and frequent shifting of the blame of inefficient processes to the opposing siloed team. Common errors are not as easily identified due to working independently without a shared space or

revenue integrity team. One method of bridging the silo is comparing key performance indicators across the departments.

Additionally, monitoring key performance indicators will provide data analytics for leadership and key stakeholders to understand areas of opportunity for improvement for revenue deficits. In the revenue cycle, several vital key performance indicators must be monitored. A sample of KPIs includes net collection ratio, net collected revenue, per visit volume, accounts receivable, clean claims rate, point-of-service collections, no-shows, payer distribution, nonphysician payroll ratio, and net collected revenue per full-time employee, and operating expense or overhead ratio (Cascardo, 2017).

Cascardo (2017) further described the KPIs in more detail. The net collection ratio, net collected revenue, and per visit volume measure the practice's ability to collect what is owed and drill down to physician productivity. Accounts receivable is a critical KPI in which aged accounts are monitored compared to benchmarks provided by groups such as HFMA and MGMA. Net collection ratio, as explained by Cascardo (2017), is the net collected revenue divided by adjusted charges and allows the determination of the facility or clinic collecting the total amount of what is owed. Another metric is the net collected revenue or per-visit volume. These metrics measure physician productivity per full-time physician. The accounts receivable KPI is critical in its measurement of revenue collected.

Best practice, according to Cascardo (2017), is that at least 65% of your accounts receivable are in the 0 – 30-day bucket, no more than 20% in the 31 – 60-day bucket, no more than 5% to 6% in the 60 – 90-day bucket, and the remainder in the more than 91-day bucket. The clean claims rate is a KPI that helps determine the number of denied claims on the first submission. A high rate reflects the need to perform a root cause analysis. The point-of-service

collections ratio demonstrates how effectively the staff is collecting owed co-pay and co-insurance amounts at the time of the healthcare service. Cascardo (2017) further explained additional KPIs in the form of the payer mix. A healthcare entity or physician clinic must analyze the available insurance plans based on geographic location. Contract negotiations for an ideal payer mix can help identify low versus high-paying insurers. A final important metric is an operating expense or overhead ratio. Cascardo (2017) defined this metric as the percentage of total expenses divided by the total net collected revenue. Expense items include but are not limited to staff payroll taxes and benefits, rent, medical and office supplies, equipment, marketing, salaries, and utilities.

Cascardo (2017) further explained a revenue leakage point of no-shows. Although it is difficult for a practice to have 100% of the patients and keep their scheduled appointment, tracking the no-show rate offers a hospital system and physician practice data statics to create a countermeasure to decrease the no-show rate and backfill patients. Hospitals and physicians must also be mindful of their payer mix and consider measures to monitor payer contracts. Finally, staffing and operating expenses are two final essential benchmarks to determine a hospital's or physician clinic's financial viability. Cascardo (2017) further advised that monitoring the payroll ratio for staff compared to net collected revenue is a good indicator of staffing efficiency and can help determine whether a practice is staffed appropriately. An excellent overall statistic is a total expense divided by the total collected revenue generated to determine the operating margin of a hospital or physician clinic.

While best practice states that a hospital and physician clinic need to monitor their key performance indicators, how does a business entity know what goal they should target? Benchmarking against similar size organizations or clinics is recommended for comparison

purposes. Healthcare also has industry standards that can be used for benchmarking purposes. To assist with monitoring these statistics, utilizing a credible source is necessary.

One organization that healthcare entities can leverage is the Healthcare Financial Management Association. The HFMA offers individual and organizational memberships to help its members by providing education, industry standards, analyses, strategic guidance, tools and solutions, and the latest updates in the healthcare industry. The HFMA's vision is "HFMA will bring value to the industry as the leading organization for healthcare finance" while also maintaining its mission of "Leading the financial management of health care" (HFMA, 2022).

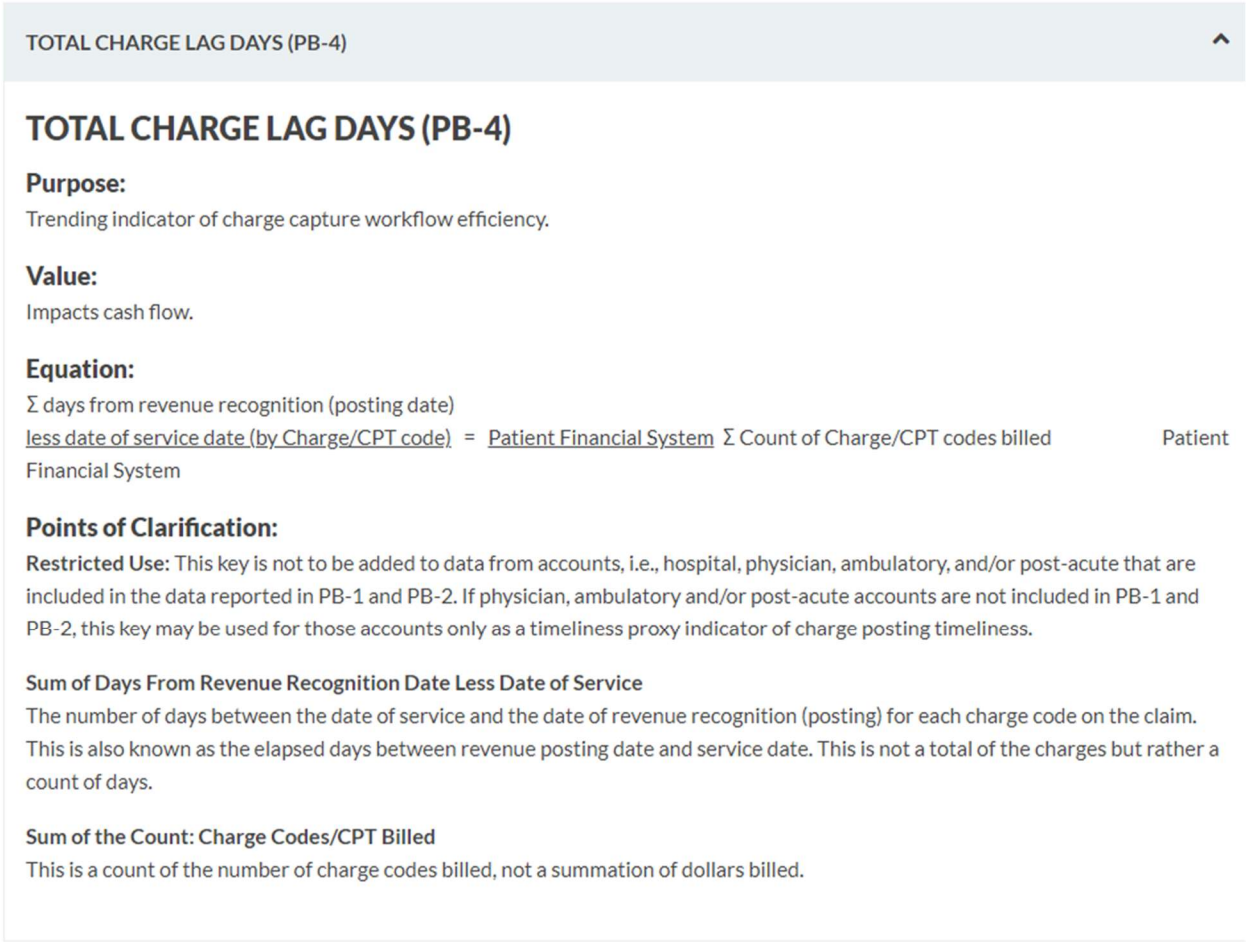
Membership with the HFMA has a variety of levels, beginning with individual student low-cost membership and progressing through faculty, professional, business partner, and international levels. Organizational memberships include enterprises, critical access hospitals, and employees of enterprise organizations. Membership offers an array of benefits including, but not limited to, unlimited HFMA website content, the ability to collaborate with interactive online forum groups, the opportunity to grow a local network, certifications, salary benchmarks, Healthcare Finance Magazine, all online education, webinars, and podcasts, a member-only newsletter, two monthly publications of Revenue Cycle Insights and the Cost Effectiveness of Health Report (HFMA, 2022).

When navigating the complexities of possible revenue deficits and revenue cycle optimization, an organization such as HFMA is a relevant resource to all stakeholders within the revenue cycle process, particularly for the key performance indicators. HFMA has resources available to hospitals, health systems, and physician practices. HFMA provides a MAP Initiative, which provides the tools of a comprehensive revenue cycle strategy to help these entities measure performance, apply evidence-based improvement strategies, and perform to the highest

standards. HFMA provides KPI definitions, and the formulas associated with these for calculation purposes. Figure 3 is an example of Total Charge Lag Days, a key performance indicator showing potential revenue deficits if the charge lag number is excessively high. The value of this metric is potentially impacting cash flow either positively or negatively (HFMA, 2022).

Figure 3

Charge Lag



An additional resource explicitly targeted at physician clinics is the Medical Group Management Association. The MGMA is tailored to the individual member as well as the organization. MGMA has a state and national level within the organization. The organization is

known for compiling a group of experts and resources that are inclusive of, but not limited to, education and certifications, strategies, networking events, benchmarking data and statistics, access to industry experts, and materials and information geared toward enhancing a physician clinic successful (MGMA, 2022).

The benchmarking component of MGMA is an interactive tool named Data Dive. Each year MGMA has survey data filled out nationwide from various physician enterprises and specialties to create a benchmarking tool for its constituents. Data dive consists of benchmarking analytics: Provider compensation, management, and staff, academic compensation, medical directorship compensation, on-call compensation, provider placement starting salary, cost and revenue, practice operations, financials and operations, and procedural profiles. These data elements are the area of focus to determine if a physician's practice is financially viable and allows the clinic to choose areas of revenue deficits.

The variety of KPIs allows a physician practice to benchmark expenditures such as physician salaries and total operating expenses to identify any areas of revenue deficit. MGMA also provides specialty and practice size data for the revenue cycle process. Data points include total gross charges, medical revenue, after-operating costs, and net income/loss to allow physician clinics to monitor their performance against better-performing practices. MGMA also drills down the data analytics into the geographic region in the nation to account for socioeconomic impacts on the revenue drivers of a clinic. Figure 4 shows the FTE physician's benchmark KPI data for a multispecialty clinic for overall EBITA (MGMA, 2022).

Figure 4

Data Dive for Multispecialty Clinic

		All Practice Types							
Benchmark	**Cut Name**	**Count**	**Mean**	**Std Dev**	**10th %tile**	**25th %tile**	**Median**	**75th %tile**	**90th %tile**
Total gross charges	per FTE Physician	155	$1,678,876	$1,041,008	$820,632	$1,039,654	$1,362,780	$1,920,056	$3,049,758
Total medical revenue	per FTE Physician	278	$824,618	$536,169	$371,899	$500,919	$691,206	$1,017,110	$1,467,569
Total medical revenue after operating cost	per FTE Physician	279	$325,659	$357,156	$28,821	$158,903	$259,787	$426,476	$682,014
Net FFS revenue	**per FTE Physician**	**278**	**$723,230**	**$453,644**	**$332,081**	**$449,244**	**$605,520**	**$881,168**	**$1,257,937**
Net capitation revenue	**per FTE Physician**	**66**	**$199,472**	**$269,023**	**$5,882**	**$21,889**	**$85,495**	**$309,346**	**$522,167**
Net other medical revenue	**per FTE Physician**	**206**	**$61,895**	**$89,746**	**$2,247**	**$9,532**	**$28,590**	**$82,545**	**$150,840**
Net nonmedical income/loss	**per FTE Physician**	**80**	**$98,379**	**$92,236**	**$5,069**	**$31,620**	**$78,126**	**$127,150**	**$184,933**
Net income/loss, excluding financial support (all practices)	**per FTE Physician**	**255**	**-$172,325**	**$291,500**	**-$427,959**	**-$318,501**	**-$195,657**	**-$22,238**	**$43,738**

Theories

Within revenue cycle management, three recurring themes appear in the literature. The first theme is the methodology of continuous process improvement. When an organization is utilizing benchmarking and data analytics, it is necessary to implement a process improvement method. Although continuous process improvement helps address areas of concern, a healthcare business must understand its long-term strategy and overall goals. The second overarching theme is strategic management from a leadership perspective. For strategy implementation to begin, leaders are identified and must meet the necessary criteria for the strategic plan. Finally,

transformational leadership is the third cohesive theme to bridge the gap between strategy and process improvement.

Continuous Process Improvement

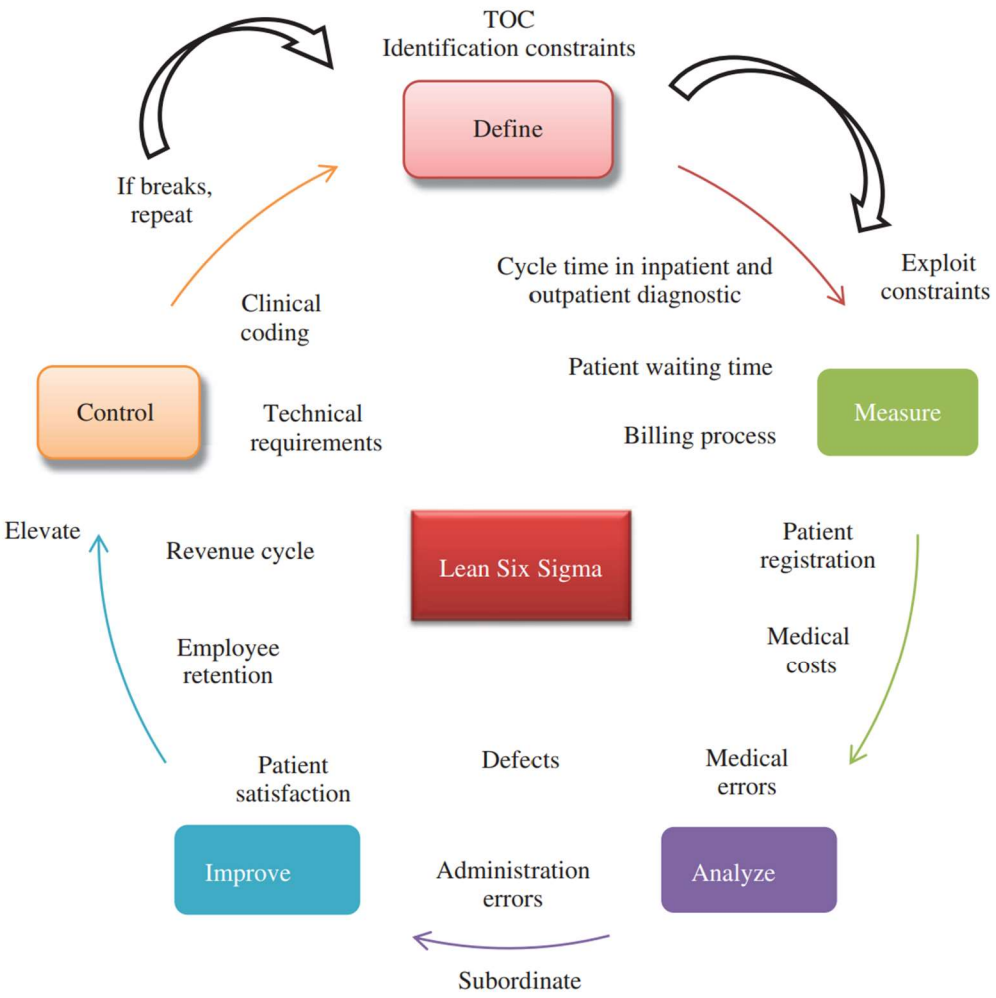
According to Al Knawy (2017), a culture of continuous improvement requires managers and clinicians to have a joint appetite for learning from within and outside their organizations. Key stakeholders must also learn from past experiences and mistakes. Another facet of continuous process improvement is an improvement program fully integrated into the organization's strategy and operational plans. Coupling the principle of continuous process improvement embedded within a revenue integrity program, a hospital or physician clinic creates a leadership structure to become the driving force of process improvements across the clinical and financial workflow processes by attempting to break down the silos.

Ahmed (2019) proposed that healthcare is a unique service industry due to the complexity of its tasks. One proposed management tool for the complex healthcare environment uses the D.M.A.I.C. (Define, Measure, Analyze, Improve, Control) approach from the Lean Six Sigma toolbox (2019). Ahmed (2019) recommended using D.M.A.I.C. in the healthcare industry to provide a roadmap to handle a quality service system toward patient satisfaction. The first step in DMAIC is the define phase. Leadership and key stakeholders must clearly define the project objective and scope for the team. Typically, the administration will leverage its strategic initiatives and concentrate on a problem. In the second phase, measurable service indicators are selected. Baseline metrics and then outcomes are measured and collected. The next step is analyzing the collected data using Lean Six Sigma tools such as cause-and-effect diagrams, scatter plots, Pareto diagrams, and the 5 Whys. During this phase, the team discovers the root causes and problems. The final phase is the control phase, which focuses on sustaining the

agreed-upon solutions. The next stage moves into the improvement phase. This phase aims to eliminate the root causes of defects that have created inefficiencies. Leveraging this continuous process improvement eliminates errors and reduces costs. As a healthcare entity improves patient quality and satisfaction, a greater chance for a positive impact on value-based reimbursement occurs, enhancing the organization's financial viability (Ahmed, 2019). An example of utilizing a lean six sigma process is listed below in Figure 5.

Figure 5

Lean Six Sigma Flow Chart



A contrasting study regarding lean management in healthcare proposes that continuous process improvement attempts to empower staff to generate ongoing improvement through incremental but regular steps toward improvement. The study's conclusion of 10 participants had varying results and definitions of breakthrough improvement. Six participants proposed that Lean processes alone were insufficient for creating efficiencies, and the gap was to include human-centered design thinking for a more successful outcome (Ahn et al., 2021). Healthcare leaders and participants within revenue cycle management must be mindful of a multi-factorial approach to capitalize upon efficiencies. Before continuous improvement processes can begin, the overall strategy and mission of the healthcare entity by top management is a prerequisite.

Strategic Management

The foundation of any continuous process improvement plan is the organizational strategy. Ahn et al. (2021) proposed that the cascading of high-level corporate objectives and initiatives with the lower levels of the organization is conducive to identifying continuous process improvement initiatives that align with the corporate strategies. A leader’s ability to successfully implement any project depends on clear strategic prioritization and dedicated time. Having too many priorities and improvement projects simultaneously is a barrier to strategic management. A barrier exists if these improvement projects do not align with the organization’s strategic direction. With what appears to be varying strategic goals, confusion and direction can become unfocused and scattered. Suppose a hospital or physician clinic creates a strategy to offer high-quality services at a cost-effective rate with patient satisfaction as a goal. In that case, this strategy must be relayed to all organizational stakeholders. This project should align with other corresponding projects and fit within senior leadership's overarching strategic model for the patient care continuum.

Revenue cycle management is often viewed as the billing process. However, one could argue that revenue cycle management is the full-service compendium of healthcare. Barnes (2017) proposed five strategic hurdles that must be conquered from fee-for-service to fee-for-value. These goals are inclusive of (a) navigation of increasingly complex payment models; (b) stabilization of existing revenue cycle process challenges; (c) Optimizing EHRs for clinical documentation, coding, billing, and quality reporting; (d) Managing the wellness of contracted patient populations; and (e) Developing reimbursement and care delivery models to fortify revenue streams.

A study by C.A.Q.H. (2021) proposed that the healthcare administrative workflow within revenue cycle management begins with scheduling a patient appointment or encounter and ends with a provider receiving payments for the services provided. One must understand the workflow and costs of conducting these transactions to streamline processes and leverage opportunities for increased revenue and cost savings.

Barnes (2017) suggested several steps within a reimbursement strategy. Suppose participating in quality performance measures such as an ACO, and the organization must understand how the quality metrics impact practice or a hospital of its size and specialty. The next step is the customization process of the EHR platform to help meet specific quality reporting guidelines. Embracing healthcare consumerism is the next step. Patient satisfaction is a crucial step in the process. Positive patient experiences foster recommendations, whereas poor patient experience has the reverse effect. Patient satisfaction is now tied to quality reporting programs, impacting revenue for hospital and physician practices.

The next stage is revenue cycle optimization, which contains several key components for focus. C.A.Q.H. (2021) further clarified four areas within the revenue cycle management that

have inherent issues: the medical coding process, the medical billing process, A.R. management, and bad debt and collections. Barnes (2017) also proposed that accurate coding can facilitate revenue gains. Ensuring proper documentation and appropriate DRGs on the hospital facility billing coupled with applicable diagnosis codes and clinical documentation on the physician's professional services is vital to salvage dollars on post-payment audit review by payers. Also, ensuring payer credentialing occurs timely before offering services updates the payer files promptly to ensure proper reimbursement. Due to the complex approval process and requirements for payment that differ by payor source, it can be cumbersome for an individual to translate the data correctly. Internal self-audits assist a hospital and physician clinic in circumventing as many as 80% to 90% of costly and time-consuming claim denials. A final potential strategy is leveraging an improved automation process, harnessing artificial intelligence with highly skilled employees (Inginix, 2021).

Reiner (2018) proposed reviewing the revenue cycle's front end to discover root causes for lost revenue. The discovery of root causes lends assistance with a preventative maintenance program. Leveraging data and analytics is vital to discovering root causes, leading to a continuous improvement plan. In conjunction with the strategy and continuous improvement processes, transformational management is a crucial concept in the revenue cycle management toolkit.

Holyoak (2017b) recommended data analytics and sharing data across all employees throughout the process. The recommendation further explains that although leadership has a strategic plan and an understanding of lost revenue, not all employees see a report on denials and understand the revenue leak root cause. Ultimately, data should drive a denials management program.

Schabel and Bechtel (2009) proposed that reducing costs and improving collections to maintain a healthy revenue cycle are insufficient. This research suggests creating a strategy with the major influencing factor in building and developing a team that fosters a culture of success, hires and maintains an engaged workforce, and sets the stage for an exceptional patient experience, improving the revenue's bottom line.

Transformational Management

Pfeffermann (2019) proposed that two leadership styles are particularly associated with innovation based on the assumption of effective leadership communication and interaction. These two styles are transformational and charismatic leadership. Transformational leaders are known for creating a climate where employees are motivated to search for innovative ideas, providing a clear vision and purpose, and championing innovative work techniques.

Transformational leaders are also known to focus on employee engagement. Research suggests the correlation between a transformational leadership style and engaged employees, which can be a vital driver of an organization's business success (Milhem et al., 2019). Transformational and engaged leaders must break down the silos throughout revenue cycle management. Change management and employee engagement will be necessary to break down the silos. Cascardo (2018) proposed navigating the barriers between the various steps in the revenue cycle involves effective communication and tight coordination between the front-end, middle, and back-end staff and processes.

Physician leadership and involvement are vital components of the change management process. Umesh Sharma et al. (2020) proposed that, ironically, the physicians selected for a leadership role typically do not receive the training necessary for the demand. According to Umesh Sharma et al. (2020), 53% of healthcare systems lack dedicated physician leadership

programs. A leadership project completed by the Mayo Clinic focused on a leadership development project for physician leaders. The project was inclusive of a workshop with a focus on the principles of leadership and teamwork. Over the next 3 months, the organization paired physician leaders with an administrative counterpart with a coach as a resource and mentor for the pair. This group focused on developing a cohesive clinical and executive team to find areas of improvement within the revenue cycle management process. The primary revenue cycle dilemma for the Mayo Clinic was the lack of standardization of provider documentation and audit process to provide feedback surrounding clinical documentation.

Umesh Sharma et al. (2020) summarized this project's results, revealing that the physician and administrative teams could formulate strategies for managing change and enhancing team performance. The team-building exercise helped the organization address a critical business challenge and created a set of recommendations, once fully executed, created business value for the organization.

Anticipated and Discovered Themes

Throughout the literature review, the emergence of themes occurred. Some themes were anticipated, along with additional discovered themes based on the research. The first theme encompasses effective communication as an instrumental concept throughout a revenue integrity program and revenue cycle management. The second theme is the use of data analytics. A healthcare organization cannot edit or redirect strategy or operational workflow to correct issues without collecting data to assess past, current, and possible future states. A third theme that emerges is employee engagement. The entire revenue cycle encompasses employees throughout the whole process. Employees include leadership, physicians, other clinicians, coding and billing

teams, registration, and finance. If no one is engaged throughout the cycle, the potential for revenue leakage or errors can occur.

Communication

Communication occurs as a theme between leadership and teams in revenue cycle management and between the groups themselves—lack of communication results in potential errors causing loss of revenue (H.F.M.A., 2019). Leadership theory suggests not only communication but that "effective" communication is imperative. Ratna (2019) described effective communication as "verbal speech or other methods of relaying information to get the point across. If either party does not understand the purpose of the information conveyed, communication cannot be effective."

When discussing effective communication factors within a healthcare setting, one must consider the communication between healthcare workers and patients with healthcare workers. Throughout revenue cycle management, there are opportunities across the workflow process to leverage effective communication to ensure quality care and financial understanding. The communication needs to be bi-directional. Ratna (2019) further demonstrates the bi-directional model below:

1. Patients need to be able to convey information about their health complaints to healthcare workers.
2. Healthcare workers must adequately comprehend and interpret the information to treat health complaints appropriately.
3. To decrease the risk of health complaints recurring, healthcare workers must convey adequate information to patients to help take preventative measures to maintain their health.

Effective communication is not only crucial from a quality perspective for the patient, but it is also the healthcare provider's staff's responsibility to effectively communicate the patient's and insurance companies' financial obligations. One example is the point of service payments, also known as the time-of-service payments. Due to the contractual obligation healthcare providers have with insurance companies, there is an out-of-pocket cost to the patient, typically in the form of a co-pay or percentage of the charge (co-insurance) expected at the time of service. The office staff has a fiduciary duty and critical role in collecting these monies. The proposed best practice is to collect any monies owed while the patient is standing before the cashier versus attempting to collect the debt once the patient leaves the office. Additionally, leveraging any practice management system with real-time adjudication technology allows the proper resources for the employee to know the amount to collect from the patient (Cascardo, 2017). Without the appropriate training and education, the staff is disadvantaged in explaining the patient's out-of-pocket costs, which can lead to improper collections, creating a leakage point for the clinic. Additionally, the patient may become frustrated due to a lack of price transparency and leave the clinic or healthcare system for another.

Price transparency has also been designated as one form of effective communication considering the transition to value-based care. Hanna et al. (2019) described price transparency as fundamental to buyers having information about sellers' prices available from the marketplace for a specific good or service. Batra and Candon (2022) stated that healthcare policymakers focus on price transparency due to the high-deductible health plans, health savings accounts, and a more 'consumer-driven marketplace" in healthcare. A case study was completed on primary care practices randomly selected from the SK&A Office-Based physician database. The sample population included 5988 secret shopper calls to physician practices inclusive of independent

practices, practices within an integrated health system, members of an accountable care organization, and practices with and without extended hours. Batra and Candon (2022) disclosed the results as follows: 61% of calls resulted in the simulated patient receiving some form of price information for the office visit, whereas 92% of calls were told they could obtain prices for routine tests; finally, only 30% of the calls were able to get the exact cost of an office visit. The conclusion of this specific case study suggests that some practices may be less likely to accommodate a demand for price transparency than others. These barriers could result in a loss of patient revenue for a physician clinic if the patient selects services elsewhere. Additionally, if staff have barriers to the cost of healthcare, they may find it difficult to elicit the proper time of service collections for patients in the practice.

Data Analytics

Leveraging data analytics as the driving factor for root cause analysis to open communication between the operational and financial teams throughout revenue cycle management appears vital to measure outcomes and address efficiencies and inefficiencies (Reiner, 2018). Onitskansky et al. (2018) further explained that the healthcare services and technology market is growing rapidly, thus allowing for opportunities and risks within the healthcare value chain. The need for data has created a niche for third-party vendors to integrate with hospital and physician practice electronic medical records systems. Leveraging data analytics allows the physician and leadership team to analyze root causes for revenue leaks, a decline in productivity, denied claims, and possible incorrect reimbursement from payer contracts. Third-party vendors have a wealth of technology and a collection of analytics that can be delivered as a dashboard to see cumulative data points more readily in an easy-to-understand

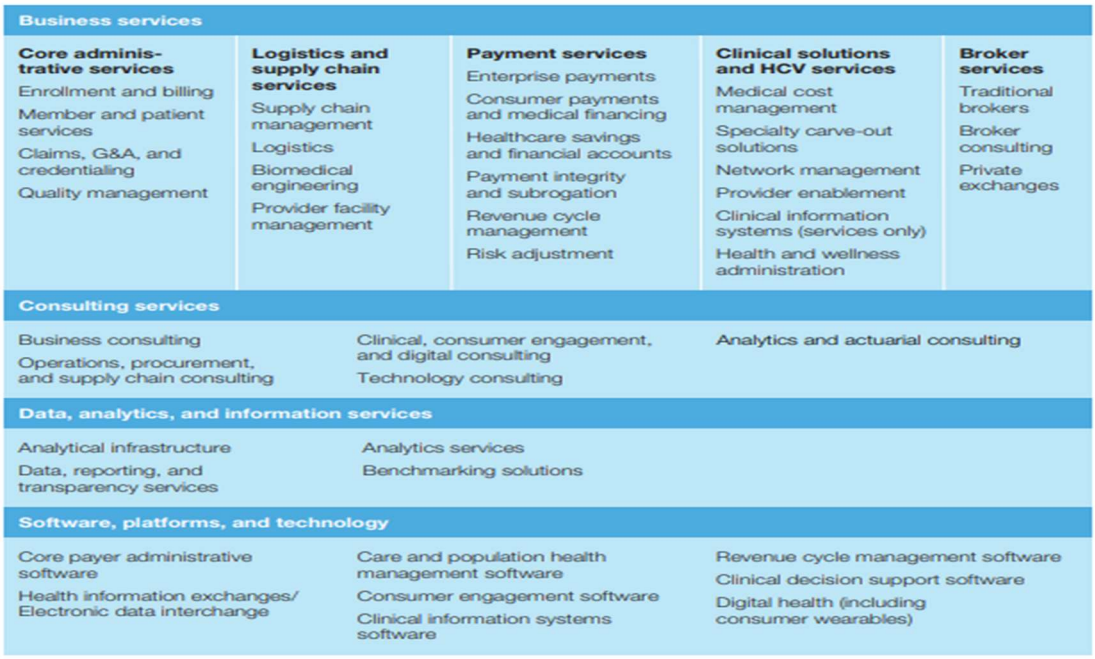
manner. Dashboards typically have a method of drilling down into data sets to define other areas of success or areas of opportunity for improvement.

Technology is at the root of healthcare service delivery. Onitskansky et al. (2018) explained that most healthcare services focus on managing medical costs and overhead expenses. Some healthcare entities also focus on quality through a population health management platform or increasing effectiveness and efficiency in administrative functions such as revenue cycle management. However, in contrast, Onitskansky et al. (2018) proposed that technology partners have delivered billions of dollars in savings, which in turn help address healthcare cost trends. This viewpoint is not as readily accepted under the shadow of the overall cost and growth of healthcare spending, outpacing the growth in the gross domestic product (GDP). According to the World Health Organization (2022), the total national expenditure is $3.8 trillion, 17.7% of the GDP. Technology and data analytics are imperative in discovering areas of improvement. Several examples exist of how technology and data analytics are leveraged in healthcare.

Insurance payers use electronic claims and send electronic fund transfers to the healthcare facility or clinic to post payments. An electronic medical record software platform hosts the clinical data for the patient. Patient demographics are entered into the chart software to verify insurance eligibility. Accounts payable and receivable are completed by leveraging a technological platform. Supply chain ordering and maintenance utilize technology for the ordering, receiving, and dispensing medicines and supplies. Figure 6, provided by Onitskansky et al. (2018), displays a more in-depth view of the wide range of use of technology within the healthcare arena.

Figure 6

Use of Technology Within Healthcare



Braithwaite (2018) has a contrasting view on how technology is leveraged in healthcare for performance improvement. Braithwaite (2018) agreed that healthcare is a complex system and more complex than other industries such as banking, education, manufacturing, or the military. The concern is that a complex system cannot simply change because someone mandates change. A complex system alters its cadence from a geographic and local standpoint over time. Typically, the change is attempted through a top-down approach with more policies, regulations, restructuring, and more strident performance indicators from data analytics. However, Braithwaite (2018) proposed turning healthcare into a learning system and stopping enlarging the policy rule book, reorganizing the boxes in the organizational chart, introducing more data analytics and changes in key performance indicators, and moving to a more sophisticated approach. Figure 7, provided by Braithwaite (2018) below, demonstrates the "what and why" of utilizing a different approach.

Figure 7

What to do and why to do it

Enabler (what to do)	Insight (why to do it)
For policy makers:	
Take multiple evaluations of what's going on	Different stakeholders have distinguishable views on what's happening in complex systems
Use system tools to uncover the system's features	Causal loop diagrams, social network analyses, role plays, and simulation can provide insights into a system's characteristics
Customise change to local contexts	Culture is unique to the context: tailoring change to the circumstances is crucial
Work with, not against, trends	Going against the currents of change is possible, but is fraught with frustration and risk—the trend is your friend
Balance standardisation and variety	There is constant tension between the push for uniformity and the need for local initiatives
Use the informal system, not just the formal system	Organisational chart thinking only gets people so far; use the informal system and its cultural and political attributes
Take every opportunity to bolster communication, trust, and interpersonal relations	Care is delivered as a system of systems, with multiple interacting networks of people at its heart—communication, trust, and relationships are key to any progress
For managers and improvement teams:	
Model the system's properties	Systems diagrams and models, computer based or hand drawn, can illuminate the dynamics of the system
Use multimethod research and improvement techniques	Randomised controlled trials or single method data gathering approaches rarely expose sufficient dimensions of complex problems
Appreciate less is more in interventions	Resist aiming to control the system through improvement strategies, projects, and change initiatives: spend more time learning about the effects of interventions than obsessing about intricate designs
Leverage complexity thinking	Immerse local teams in complexity science and systems thinking
Focus less on the individual and more on the system	It's much harder to change individuals—seek instead to nudge or perturb the system
Develop and apply feedback to people involved at every opportunity	Change and improvement is a set of feedback loops, not an event or a linear process
Look for things going right as well as those going wrong	This promotes a more balanced view of the system
For frontline clinicians:	
Adopt a new problem solving focus based on systems thinking rather than obsessing with finding "a" way forward	Search for interconnections rather than getting stuck on any one solution
Look for behavioural patterns in the system and listen to the language people use	The rich behaviours and practices of others, and the signals and messages they convey, are full of beneficial cultural and systems information
Beware excessively causal logic	Take care in attributing cause and effect—overgeneralising causation is a common error
Trade-off between constant turmoil and implementing changes before they are ready	All systems sit not far from the edge of chaos: ride the boundary, and remember the old lesson that much in clinical practice and systems is uncertain
Understand that adaptation is almost always micro and granular	Big picture transformational change is rare and is expressed differently in different settings when it does occur
Appreciate that humans have a social brain	Organisational participants are perennially tuned in to the behavioural repertoires of others: use this expertise, and be attentive to others' needs and motivations

Although data analytics is essential to decision-making and overall strategic planning as the root of healthcare delivery, the heart of healthcare is the employee.

Employee Engagement

Although the theme begins with the overarching legislative changes and impact on revenue, both Pfeffermann and Milhem et al. (2019) highlighted that the composition of employee engagement is vital to the success of culture change, process improvement, and guiding the revenue integrity program. Much focus has been on employee engagement, physician burnout, and the impact on delivering quality healthcare. Wee and Lai (2022) explained that although research has been interested in the correlation between work engagement and quality of care, there is a lack of precise data to draw a definitive conclusion. Wee and Lai (2022) moved forward with their research and focused on frontline healthcare workers to accurately assess quality care at the two closest contact points. The study was conducted with 132,664 healthcare

professionals across 13 countries within four continents. The results returned a summary of implications for practice. The results surmised that healthcare practices should expand their focus on burnout to include engagement, as engaged employees who perform well can create resources, fostering a positive environment that improves quality ratings for the patient (Wee & Lai, 2022).

A slightly different viewpoint focused on leadership rounding and its impact on employee engagement. Sexton et al. (2018) studied the correlation of WalkRounds by leadership to encourage front-line healthcare workers to troubleshoot and resolve patient safety issues. In healthcare, the demand for care has increased compared to decreasing resources such as staff, which causes hardship for the employees. These barriers cause areas of concern such as burnout, low engagement, stress, compassion fatigue, and low safety and quality culture. The purpose of leadership rounding is a setting in which a leader with a position of authority can assist with action items on recommendations resulting from the rounding process. This study utilized a cross-section survey of 31 hospitals throughout the Michigan Health and Hospital Association as part of their routine safety culture and engagement assessment. Sexton et al. (2018) concluded that a strong pattern of results for better safety culture assessments with WorkRounds accounted for increased employee engagement and decreased burnout. The study supports the theory that transformational leadership is needed to engage employees more meaningfully to foster workplace efficiency and improve staff resiliency.

Schabel and Bechtel (2009) further supported the need for employee engagement by creating and fostering a culture of success by identifying proper hiring methodologies for employees who will support and maintain the workplace culture. The purpose of employee engagement in this review was correlated to the collection of outstanding balances owed to the

healthcare entity. The identification of passionate employees is noted to be essential in the workplace setting when working in patient collections. The additional attributes for the right selection include a positive attitude, character value, and enthusiasm. An ideal employee should be willing to understand the patient's perspective and concerns when addressing outstanding balances. Schabel and Bechtel (2009) further proposed fostering a culture of success takes time and effort from the leadership team. Building the ideal team is proposed to increase employee satisfaction, directly impacting productivity and patient engagement. The bridge to patient satisfaction starts with the leadership team's ability to foster and care for their employees.

Summary of the Literature Review

Healthcare providers' financial viability is essential to continue providing care for the community and patients served by the clinicians. The delivery of healthcare is highly complex, with many layers. External and internal factors influence the ability to provide care while balancing the assurance that revenue dollars are collected. Understanding the legislative changes that impact workflow processes are necessary to create strategies inclusive of a revenue integrity program and to reduce healthcare expenditures and revenue leakage. Emphasis continues to be placed on value-based care to patients, while legislation provides a carrot and a stick to healthcare providers. Rules and regulations are cumbersome at the legislative level, combined with various payer contracting issues, adding to the expense of the healthcare provider while also providing obstacles to reimbursement revenue. The rising costs and decreasing reimbursement from the insurance payers and patients' ability to pay compound the complexity of the financial viability of hospital facilities and physician clinics.

A revenue integrity program seeks to address problems throughout the revenue cycle management program to combat rising costs to healthcare delivery, review efficient and

inefficient workflow processes, and assess a culture of change in an organization. A revenue integrity program includes forming a multidisciplinary team encompassing members from the organization's operational, clinical, and financial areas. The research suggests that multiple resources are available to healthcare organizations to help with strategies and planning for revenue cycle management. With all the tools and resources available, one would think that hospitals and physician clinics would be profitable in this landscape. However, the literature view highlights barriers to success in staffing, silo approaches, and tunnel vision of limited problems instead of tackling the possible overhaul of the entire process.

Data analytics are essential to determine areas of concern within revenue cycle management and the monitoring of quality care metrics. The multidisciplinary team can leverage the data points as the basis of communication for change. Because of the complexity of the healthcare system, the difference is not easily nor readily completed promptly. Leadership must be transformational to promote a change management culture to lead change within a healthcare facility or physician clinic.

The most crucial element in revenue cycle management change is the employees and the ability to create and build a team of engaged and driven members. Leadership, data analytics, and front-line staff cannot make changes through a silo approach. Fostering a culture of engagement must be at the foundation of the revenue cycle process.

Transition and Summary of Section 1

This qualitative multiple-case study explored the decision-making process behind implementing a revenue integrity program to enhance financial viability throughout the revenue cycle management process. Section 1 contains the foundation of this study, including the purpose and problem statement, which discusses the central theme of this study. Section 1 also includes

the nature of the study, the research questions, and the conceptual frameworks utilized to guide this research. This section discussed the significance of the study, including gaps, biblical integration, and its relationship to the field of business administration in the finance cognate. Section 1 concluded with a review of the academic literature that discussed barriers to financial viability, adoption of a revenue integrity program, and measures recommended to provide quality healthcare while balancing costs to provide the service. The academic literature review also discusses gaps in the existing literature and discovered themes.

Section 2: The Project

In Section 1, the research questions drove the literature review to establish a connection between the existing knowledge surrounding the revenue cycle and the research study. The literature review created the foundation for academic research through a qualitative case study, flexible design, and multiple case studies. The study explored the potential inefficient insurance denial process within non-profit hospital-owned physician practices in the northwest region of Georgia, resulting in possible revenue deficits for the provider clinics. Section 2 builds on the foundation of Section 1 by restating the purpose statement. Section 2 also provides a more detailed description of the role of the researcher, the researcher methodology, a discussion of flexible design, and a discussion of triangulation.

Purpose Statement

This flexible qualitative design case study explored the possible inefficient insurance denial management process within non-profit hospital-owned physician practices, resulting in revenue deficits for the provider clinics. Healthcare delivery's administrative and clinical burden leaves potential productivity, clinical quality, and revenue reimbursement inefficiencies. Bowman et al. (2019) proposed that organizations create a preventative plan to mitigate the financial risk of insurance denial management. However, due to the complexities of healthcare, the action plan becomes a matter of guesswork, not an efficient process (Bowman et al., 2019).

Healthcare leadership, clinicians, finance team members, and revenue cycle team members are responsible for being good fiduciary stewards while balancing the patient's quality of care. An essential aspect of leadership responsibilities in a healthcare entity or provider clinic is influencing and fostering a culture of change to promote the effectiveness of revenue cycle management and achieve financial success.

Role of the Researcher

The role of a researcher was to investigate, study, and analyze a particular subject or area of interest. The role of the researcher in this qualitative study was to gather data and information to review the possible outcomes of revenue cycle management and the barriers to financial viability. The researcher must determine the methods and tools used to collect and analyze the data. Stenfors et al. (2020) proposed an important role for the researcher to assess the quality of their qualitative study by ensuring the alignment of the theoretical or conceptual framework with the research questions. A marker of quality of the researcher was that the researcher reflects their role in the study. An example would be to describe the researcher's relationship to the respondents. Additionally, the researcher was required to utilize critical reflection and justification of the selected framework underpinning the study. Disclosing relationship information increases the transparency and trustworthiness of the findings. Researchers are responsible for designing and conducting studies or experiments to gather data and information to answer research questions or test hypotheses.

The role of the researcher was important in ensuring the reliability of the research findings. According to Leedy and Ormrod (2019), avoiding bias during research is almost impossible. Researcher bias can influence the data. One must be mindful of bias when performing the research aspects of the study and the potential impact on the conclusions drawn. Each researcher has their point of perspective built upon their value system and general belief systems. A researcher who recognizes possible biases must be candid about possible sources of bias throughout the research study. The researcher also used coding, bracketing, and triangulation tools in data collection and planning.

Creswell and Poth (2018) explained the researcher must also adhere to ethical guidelines and standards when conducting research, including obtaining informed consent from participants, protecting their privacy and confidentiality, and avoiding harm or discomfort. Researchers are also responsible for interpreting and analyzing the data collected from their research and drawing conclusions based on their findings. Stenfors et al. (2022) stated, overall, the role of the researcher is to contribute to the body of knowledge in their field and to provide evidence-based information that can be used to make informed decisions and policies.

Research Methodology

The following section is specific to the chosen research methodology. The selection of research methodology is imperative to the process of research. Leedy and Ormrod (2019) further explained that the research topic and data type drive the research methodology. For revenue cycle management research, a qualitative case study design addressed the problem and research questions presented. A flexible, qualitative research design was appropriate since the research aims to understand why there is a potential for revenue deficits within the operational processes of revenue cycle management. Specifically, a single case study method supported an in-depth understanding of the problem in a real-world platform. Yin (2015) also suggested that using the interview methodology in a case study research design provides the researcher with one of the most significant sources of proof.

Discussion of Flexible Design

As noted throughout this research, revenue cycle management is a highly complex field with multiple variables. The flexible research design allowed the researcher to make adaptations throughout the research study based on the collected data. As this research strived to understand the root cause of barriers to sufficient revenue stream into healthcare practices and entities,

qualitative research is the most appropriate conduit because a problem or issue needs to be explored (Creswell & Poth, 2018). A qualitative study can also define what is important and what needs to be studied. McArdle (2022) proposed that use of a fluid or flexible approach to the research process allows researchers to be open and adaptable to changes within the research.

Yin (2108) described five reasons to perform a qualitative analysis. The five reasons are as follows: investigating the meaning of life in real-world settings, representing people's views and perspectives, uncovering the context in which people live, offering insights into existing or new concepts that help to understand human behavior, and attempting to use multiple sources of information instead of relying on a single source of information. Within revenue cycle management, the researcher proposes to collect information from stakeholders within their real-world setting and seek to understand their perspective with their involvement in the revenue cycle process. Clare (2022) described qualitative research as a pathway to investigate complicated problems to understand a process like a consultation or a story. Using interviews and speaking directly with revenue cycle individuals allows the researcher to understand the deficits in the revenue stream. A flexible qualitative research design was most appropriate for this study. The flexible design was selected for the revenue cycle management research as it is important to understand the possible root causes of revenue deficits within the operational workflow processes.

Discussion of Case Study

The research methodology proposed as the most appropriate was the single case study. As previously determined, the data and the research drive the methodology. According to Glette and Wiig (2022), the advantage of leveraging a case study is the ability to investigate complex social phenomena and handle a dense amount of data. Revenue cycle management contains

multiple focal points within the operational process, such as registration, clinical documentation, coding, billing, physician contracts, and reimbursement, which can be quite complex. Because of these complexities, a single case study is proposed as the most appropriate modality. Mfinanga et al. (2019) also explained that case studies are more commonly used in medical and psychology research. Yin (2018) described case studies as the methodology that seeks to define the "how" or "why" of a particular subject. Since healthcare has many influences from a regulatory standpoint, various stakeholders, and financial challenges, one would propose a single case study is most appropriate to define the how and why of revenue deficits or operational inefficiencies. The case study design was appropriate for the research of revenue cycle management as the researcher wishes to understand the circumstances involved in the process from the perspective of all the actors. Additionally, since the sample was from one geographical location and the focus was specific to revenue deficits in the North Georgia region, the case study research design was most relevant for this study.

Discussion of Method for Triangulation

Theory triangulation implies utilizing a variety of theories or perspectives to support or refute hypothesis according to Carter et al. (2014). Additionally, the use of triangulation from multiple points helps to reduce biases in the research findings. Limiting research bias is a strength of the triangulation methodology. Utilizing the single case study methodology is a strategic research design to ensure enough sources and lines of inquiry. Shea (2022) and Patton (2014) further proposed the purpose of utilizing triangulation is not merely to identify inconsistencies to render information incorrect, but also to discern the reasons for the differences or discrepancies. Yin (2018) shared a major rationale for using multiple sources of evidence in a case study that relates to the fundamental motive or problem in the first place and how to study

that problem in a real-world setting. Sources include documents, open-ended interviews, researcher and participant observations, structured interviews, surveys, and focus interviews.

Leedy and Ormrod (2019) further supported using triangulation as a common methodology within qualitative research. Forms of triangulation included specific components such as analysis of contradictory data, respondent validation, and follow-up studies to eliminate alternative explanations of findings. Searching for discrepant voices and outliers in qualitative research allows the researcher to revise the assertions until all the collected data are accounted for. Additionally, respondent validation is a vital component of triangulation. Leedy and Ormrod (2019) explained the importance of a researcher in this method to take findings back to the participants to validate or dispute the study's conclusion. Finally, all research may be interpreted through the perceptive window of the reader. Follow-up studies are designed to rule out competing interpretations.

Denzin (1978) explained the four types of triangulation data, investigator, theory, and methodological. Creswell and Poth (2018) further described the four types of triangulations in more detail as follows: (a) data triangulation which is the use of multiple data collection techniques; (b) observer triangulation, in which the study has more than one observer; (c) methodological triangulation which leverages quantitative and qualitative approaches; and (d) theory triangulation which utilizes multiple theories. Data triangulation fosters the collection of various sources, periods, and participants. The investigator or observation technique allows more than one researcher in a study to experiment. Theoretical triangulation encourages using multiple theories to interpret data, according to Creswell and Poth (2018). The most common triangulation method is methodological. This modality uses multiple methods such as interviews, observations, surveys, and document analysis.

Case study research, with its in-depth analysis in a real-life setting over time, allows for collecting multiple data sources and converging findings. For revenue cycle management, interviews provided the largest data source in conjunction with observation and document analysis. The researcher took into consideration the use of surveys to supplement the interviews. These varied sources allowed for multiple and differing perspectives on the subject matter of revenue cycle management. Allowing for multiple observation points throughout the research decreased the chance of a biased perspective for the researcher.

Summary of Research Methodology

In conclusion, a single case study was proposed as the best research method for this research study. The multiple-case study design analyzes multiple cases individually to illustrate the in-depth analysis in the real-life setting of healthcare revenue cycle management (Yin, 2018). The flexible design was selected to implement open-ended questions in this qualitative research study. The qualitative research method was chosen as a flexible approach to the research process (Robson & McCartan, 2016). Finally, triangulation was leveraged to limit the possible biases of the researcher.

Participants

The selection of participants in a qualitative analysis were experts within the selected field. Yin (2018) advised that within a case study, the interviews are one of the most important sources of evidence in qualitative analysis; thereby, participant selection is crucial to the discovery phase of research. Subedi (2021) described how important the participants are in research and their impact to the rigor of the project. Also important is that other data can be collected from participants through journals and memos. The key to properly using participants is the validity of the research and data collected.

The participants of this study were members of the community healthcare system and local independent practices in the North Georgia region. Participants were selected and included as knowledgeable subject matter experts throughout the various stages of revenue cycle management. Participants' job descriptions or titles included but are not limited to members of senior management at the community hospital, such as directors, executive staff, practice managers, physicians, billing specialists, medical coders, and revenue cycle management teams.

Population and Sampling

For this qualitative single case study, the researcher used a purposive sample strategy to select participants for the research of revenue cycle management. The reason for purposive sampling is the "better matching of the sample to the aims and objectives of the research, thus improving the rigor of the study and trustworthiness of the data and results" (Campbell et al., 2020). The selection of population and sampling requires the purposeful selection of participants with the knowledge base to gain data appropriate to the course of research. Denny and Weckesser (2022) also proposed purposive sampling is like the recruitment based on a shared experience that is relevant to the research question. Those individuals within revenue cycle management do have the foundation of shared experience based on their location within the revenue cycle management process.

Healthcare revenue cycle management includes hospital systems, private independent practices, insurance payers, and governmental bodies throughout the nation. Researching and interviewing all possible healthcare systems throughout the country is impossible. Leedy and Ormrod (2019) proposed the researcher draws inferences about a population using estimates of population parameters. A parameter for this study is defined as a population's characteristics or quality constant in concept; however, its value is variable.

Within population and sampling lies the sample size and data saturation concern. According to Hennink and Kaiser (2022), saturation is the most cited justification for an adequate sample size. However, there is a consistent lack of transparency in how sample sizes are justified in published qualitative research. Their systematic review of 23 articles concluded the saturation point at which little or no relevant new codes were found in the data and when issues began to be repeated with no further conclusions drawn. This research incorporated a case study of the Northwest Georgia region healthcare system and its sample among the participants throughout the revenue cycle management process. Interviews with participants identified emergent themes.

Discussion of Population

The researcher proposed to utilize participant recruitment through in-person requests, emails, and phone calls. During the initial requesting period, the researcher provided each participant with a clear understanding of the purpose of the study, the approximate time commitment for study participation, and an informed consent form as a requirement to participate. The proposed participants for this study were healthcare professionals from the North Georgia area within the hospital setting and independent physician practices. The proposed chosen participants include CFO, COO, Executive VP, Directors, compliance officer, billing specialists, medical coders, practice managers, and miscellaneous team members.

The researcher selected participants that met the following eligibility measures: (a) Healthcare professionals from the executive administrative suite that has experience in financial decision-making processes for their healthcare facility, (b) physician leaders working in the employed physician practices and independent practices with knowledge of risk adjustment scores and clinical documentation, and (c) members of the revenue cycle process with first-hand

knowledge of the medical coding and billing process. The participants chosen for this research project had first-hand knowledge of the decision-making process regarding the revenue cycle and the integral components of value-based care. These healthcare professionals have combined years of experience and knowledge pertinent to the complex components of revenue cycle management. Participant experience in the components of the revenue cycle supported the researcher in collecting and analyzing relevant data related to the phenomenon studied.

Discussion of Sampling

Researchers have a variety of sampling methods to select within their research parameters. Campbell et al. (2020) proposed that different sampling designs may be appropriate in specific research situations. The two primary types of sampling are probability which involves random selection, and non-probability sampling, which involves non-random selection based on a select criterion. Creswell and Poth (2018) stated that probability sampling is useful in quantitative research with statistical analyses that represent a greater population of people. Subcategories for probability sampling include simple, stratified random, multistage, and cluster. All four subcategories use a type of customizable randomization to achieve statistical accuracy of a larger population.

According to Creswell and Poth (2018), non-probability sampling is representative of qualitative analysis. The researcher selects the sampling technique based on certain criteria. Within non-probability sampling, the researcher chooses a specific part of a population based on factors supportive of the research. Within non-probability sampling are convenience, consecutive, voluntary, purposive, snowball, and quota subcategories. Leedy and Ormrod (2019) shared that in convenience sampling, researchers choose individuals for their study because they are convenient and readily available to participate. The consecutive method allows the researcher

to choose small group samples and select more if needed. The voluntary method is utilized when the researcher asks for volunteer participation. This is easily completed with the use of surveys. Within the snowball method, the participants recruit other participants for the researcher. Quota sampling seeks a particular trait or characteristic within a population. The final subcategory is purposive sampling, in which the researcher uses their judgment to recruit participants who may accurately represent the target information.

Campbell et al. (2020) described that purposive sampling prohibits randomized sampling. Purposive sampling targets specific cases that could be included in the final sample of the research material. Purposive sampling is ideal for exploring the components and possible deficits in revenue cycle management, as the researcher can select ideal participants based on their job roles and descriptions. Additionally, the reasons for adopting a purposive strategy assume that, given the aims and objectives of the study, specific kinds of people may hold different and important views about the ideas and issues in question and therefore need to be included in the sample. When considering the participants' specific skill sets, purposive sampling qualifications are met.

Husband (2020) further supports purposive sampling by utilizing semi-structured questions. Through purposeful questioning and discussion in the carefully designed and piloted semi-structured interviews, respondents are asked to re-live their formative professional learning and first-hand experience. This platform allows for open-ended questions to allow the participants to provide data and information for the researcher that is more advanced than simple yes or no questions.

The difficulty is sampling then occurs. To what extent does the researcher realize enough data has been collected during qualitative analysis? Guest et al. (2006) note that guidelines for

determining sample sizes in qualitative analyses are nonexistent. Purposive samples are the most used form of sampling, relying on data saturation. Without a clear guideline for data saturation, the researcher must rely on the concept of saturation of data. Guest et al. (2006) propose that saturation can occur as early as the sixth interview but as many as up to twelve interviews. It will be incumbent upon the researcher to realize when no new data collection occurs. However, a contrasting view provided by Hennink AND Kaiser (2022) proposeD that qualitative studies can reach saturation at a relatively small sample size. Results show that 9 – 17 interviews or 4 – 8 focus group discussions reached saturation. For this case study, the researcher initially planned for a minimum of 20 participant interviews to attempt to reach saturation. If saturation is not reached, continued participant involvement will occur after no new issues are found in two to three consecutive interviews or focus groups.

Summary of Population and Sampling

The researcher proposed to utilize purposive sampling in this qualitative multiple-case study regarding revenue cycle management. The concept of semi-structured interview questions will allow the participants to provide in-depth answers to the open-ended questions. Participants ranged from the executive suite to front-line workers in revenue cycle management. The researcher determined complete data saturation and corresponding sample size once no new information was gleaned from the participant sample pool.

Data Collection and Organization

The qualitative research design naturally progresses to data collection and organization. Initially, the researcher seeks to collect and shift through supporting or conflicting data points. However, when considering data collection and organization, the researcher must recognize the process outside gathering data elements. Aguinis et al. (2021) described the data collection and

organization process as involving making choices about research design, testing of research theory, data selection technique, recording of data, and methodology for securing the collected data.

Data Collection Plan

Data collection for this qualitative case study involved one-on-one interviews with the participants. Interviews resemble guided conversations rather than structured queries, allowing the participants to provide data fluidly, as Rubin and Rubin (2011) described. The researcher planned these interviews in person or via videoconferences such as Zoom or Webex. As a last resort, telephone or email was conducted when a participant could not meet in person. Yin (2018) recommended an audio recording of the interview only if the participant has provided permission. Audio recordings provide a more accurate rendition than the researcher taking notes.

Alam (2021) stated within qualitative research interviews using semi-structured questions are a popular method for collecting data. The researcher aims to ask open-ended questions and allows the individuals to share their perspectives. An open-ended approach allows the interviewer to ask follow-up questions and obtain additional details based on the participant's level of expertise. Within an interview the researcher has prepared a list of themes and questions that will create elasticity based upon the respondents' answers. There are benefits to certain types of interviews. Creswell (2016) further explained that an in-person interview allows the interviewer to read body language and establish a personal collection. However, if there is a timing or geographic difference, then a telephone call allows the participant to share their viewpoints when otherwise they may have been excluded. Alam (2021) further proposed the semi-structured interview process that allows participants to express their opinions by their

knowledge and experience. This process is especially useful through a face-to-face encounter as the respondents seem to understand the questions more clearly when present with the researcher.

Robson and McCartan (2016) classified interview methodologies as structured, semi-structured, and unstructured. Structured interview questions are rigid in modality. The questions are precise and presented in the same order each time. Structured interview questions are very similar to survey questions. Semi-structured interview questions have core research questions; however, the interviewer can leverage any follow-up questions. Unstructured interview questions are very informal and center around an area of interest.

In this case study, the researcher contacted each participant to make introductions and schedule interviews following IRB approval. The researcher followed the semi-structured guidelines provided by Creswell (2016) and Robson and McCartan (2016) and allow follow-up questions during the interview. The researcher recorded sessions for the participants who have been granted permission. The researcher used the research questions in Appendix A. Notes included observations of body language and general impressions of the interviews. The researcher transcribed and reviewed field notes within 48 hours of each interview. All interview components will remain confidential and secure with the researcher.

Member Checking

Member checking ensures checks and balances throughout the study to provide credibility to the research study. Leedy and Ormrod (2019) described member checking as the process in which the researcher requests the participants of the study to review the transcripts collected by the researcher to provide validation of the accuracy of the data depicted. Another viewpoint of member checking is ensuring the researcher views the data through the participants' lens. Creswell (2016) described the researcher as incumbent to take broad summary statements

about the data such as themes back to the participants to ask the participants if the themes and summaries accurately represent what was said. Stenfors et al. (2020) proposed the credibility of the analysis can be enhanced through member reflections another term for member checking. Utilizing the opportunity to share preliminary findings with the participants for additional input and elaboration allows for fact checking and data correction.

Upon review, an important component to understand about member checking is the researcher does not necessarily completely change the findings; however, the researcher does glean an improved understanding of the insights of the participants that could either be included in the analyses or even take the research into a new direction (Leedy & Ormrod, 2019). Member checking is a methodology to exclude bias and fact-checking for the researcher. Creswell (2016) aptly described qualitative research; a key component is for the researcher to check in with participants and involve them in key decisions in the research process in a collaborative effort. This platform encourages building support for the study and the potential use for the findings and outcomes.

Follow-up Interviews

Rubin and Rubin (2011) proposed interviews are considered social interactions based on conversations. The qualitative analysis aims to research and discover themes and possible findings. During the initial interviews, the researcher must verify with the participants if a follow-up interview can occur based on emerging themes and findings. Moser and Korstjens (2018) advised researchers to prepare for revisions to their interview guide based on results from the participant interviews. Through the process, researchers will gain experience and insight, and the potential for changes to the line of questioning may occur. The researcher may need to add

follow-up questions to the original interview guide. If this occurred during the interview, the researcher followed up with the original participants to append based on the new questions only.

Creswell (2016) recommended follow-up interviews with participants as a part of member checking to allow for additional validation or comments on the emerging themes. Creswell and Poth (2018) also provided within interview protocol or etiquette; the researcher should follow up with each participant with a thank-you note or email expressing appreciation for the interviewee of their participation. The researcher followed protocol and expressed appreciation to each of the participants. Additionally, the researcher again assured the participants of the confidentiality of the responses.

Instruments

The qualitative research design is structured so that the researcher must obtain their data collection using an instrument or protocol (Klykken, 2022). A vital step within data collection is obtaining informed consent. The consent should clearly articulate the overall framework of the project and is considered a key ethical standard within qualitative research. The researcher must not only emphasize the recruitment phase of participants, but also obtain formal access by sharing information and soliciting individuals' consent to participate in the research project.

As Creswell (2016) stated, the interview is one of the most common instruments to gather participant data. Using semi-structured, one-on-one interview formats allows the researcher or interviewer to capture the key data elements while also allowing the interviewer and the participant to expound on any additional perceptions regarding a particular research question.

Creswell (2016) further proposed that the interview protocol should be approximately two pages long. The interviewer must leave space to add notes and document direct quotations to validate audio recordings. Research questions must be between five and 10 questions and

prepared in advance. A key element is that the questions must be used consistently throughout all the interviews. The interview protocol consists of an introduction, opening questions, content questions, use of probes, and follow-up questions. The introduction allows the participant and the researcher to familiarize themselves with the general overview of the interview and content matter. The opening question is the first important question to allow the participants to become at ease with the process and typically is a type of ice-breaker moment. Once familiarity is achieved, the researcher can begin with the content questions equivalent to the research questions. During this portion of the interview, the interviewer can use probe cues to encourage the participant to give additional information based on their expertise. Examples of probe cues consist of phrasing that encourages the participant to expound more on a particular thread of thought. Finally, the interviewer may use follow-up questions that allow the interview to close and the participants to provide additional resources. The interviewer will utilize the research questions in Appendix A as the foundation of the line of questioning for each participant.

During the interview process the researcher must be aware interviewed qualitative data can be very difficult and not readily convertible into a standard element of objectives as proposed by Alam (2021). The researcher needed to gather and record the interviews systemically. Once all data were obtained then the interviews were transcribed by the researched to accomplish the general ideas of the explanation, accuracy, and actual meaning before the data are coded. The researcher also employed the use of direct observation of the participants to record the observed behaviors and activities during the interview.

Interview Guide. The interview guide is the foundational structure to the semi-structured interview process, which guides the researcher to consistently collect data from each interview. The interview guide also helps the researcher stay focused and provides a format for the

interview. Leedy and Ormrod (2019) advised the researcher the interview questions encourage the interviewees to talk about the topic without hinting or directing the interviewees to a particular response. Denny and Weckesser (2022) further explained that semi-structured interviews with their pre-set and open-ended questions can generate additional questions based on emerging themes. Questions should stimulate an informative conversation without the researcher's bias impacting the corresponding answers.

Appendix A is structured after the sample interview protocol recommended by Creswell and Poth (2018). Each interview transcript provides the interview date and time, the interview place, the interviewer and interviewee's names, the interviewee's job title, a description of the research project, and the interview questions. The researcher also applied examples provided by Leedy and Ormrod (2019) on how to align the research questions to interview questions which again prompts the interviewee to talk about the topic.

Data Organization

Once data collection is completed, the researcher's next step is creating a data organization plan. Analyzing and validating data collection in qualitative research requires a methodological method of sorting through the data obtained. Creswell and Poth (2018) described data analytics methods, including coding and organizing themes to form an interpretation of the research. In the first coding step, the researcher sets up the transcripts and field notes from the interview data collected to code emerging themes. Leedy and Ormrod (2019) defined coding as open, axial, or selective. Open coding divides the data into segments, finds common themes, and begins grouping the themes. Axial coding is a subcomponent of open coding in that one or more categories might emerge as the central theme and transition into the core category. The core category becomes the axis on which the research develops around. Finally, selective coding and

theory development allow the researcher to choose the core concept, and this theory is developed systematically to conclude the research.

Summary of Data Collection and Organization

Data collection and organization create the base foundation for data analytics within this qualitative case study research. Utilizing the common modality of the interview process, the researcher can gather perceptions and real-world experiences from participants who are experts in their chosen roles within healthcare revenue cycle management. The research project leverages one-on-one semi-structured interview research questions to achieve consistency among participants but also allows flexibility for follow-up questions based on the participants' skill set and knowledge base. Once interviews were completed, the researcher organized the data and leveraged software technology for emerging themes.

Data Analysis

The data analysis portion of the research is the attempt to create a logical and methodological representation of the data. Leedy and Ormrod (2018) described qualitative analysis using inductive reasoning. Qualitative researchers attempt to be objective and use many specific observations to draw inferences about the selected phenomena.

Emergent Ideas

Once the researcher collects the data and sorts through the transcription and results, reading through the information is the first step to understanding possible emerging themes and ideas. The researcher can use notes throughout the reading process to create memos that will allow the researcher to form initial thoughts and interpretations. Leedy and Ormrod (2019) described three types of memos that can be used to categorize emergent ideas. Memos include reflective, methodological, and analytical. Reflective memos are like personal journals and are

commonly used in ethnographies. Methodological memos are utilized to track progress throughout a particular research theme. The analytical memo is the most conducive to a qualitative case study. describe the analytical memo as a collection of discussion notes to reveal emerging themes in the participants' actions or statements. Analytical memos can also describe preliminary theories emerging throughout the research.

Creswell and Poth (2018) had a similar but contrasting view of memo work in emergent ideas. The use of segment memos helps the researcher develop codes. Then the researcher may use document memos to capture the common emerging themes and help identify coding categories. The last step is the project memo which is a more strategic approach and allows the integration of themes and main ideas across the collected data. advised putting information into themes and subthemes during this process. This process can be displayed as a flow chart, memos as already described, using a computer software program.

McGowan et al. (2020) proposed that within the qualitative research process conclusions are drawn based on the data obtained with a focus on description and emergent concepts and theories. Primarily, the researcher is advised to remain open to emergent ideas and themes based upon the data collected from the interview and coding process. Leveraging this mindset allows the researcher to focus on investigating experiences and determinants of behavior within the selected research parameters.

In this study, the researcher plans to capture emerging themes using electronic memos throughout the collected data, which will be formatted in both Word documents and Excel spreadsheets. The NVivo computer-assisted software provides trust but validates the process for emerging themes. The researcher can then move to code the emergent themes from this initial process. Alam (2021) stated NVivo has many advantages in research. The software program

gives flexibility in the ways to categorize rich-text data and improves the quality of generated results. An important advantage is the ability to reduce the time and efforts for the researcher to analyze the data manually. Additionally, the software has the ability to identify trends and cross-examine information to discover the most important themes to produce a conclusion. Finally, the software can create graphs and models to depict the concepts within the findings.

Coding Themes

Once the emergent themes have been identified, coding the themes, according to Creswell and Poth (2018), allows the researcher to classify and interpret the data collected. Alam (2021) shared that coding can be completed with the use of computer software technology. One such technology for qualitative analysis is NVivo software. The researcher's first step is to load collected data into a common secure location. Consideration was given to both Microsoft Word and Microsoft Excel. The researcher prefers the Excel spreadsheet due to the flexibility of compiling data into pivot tables if needed. Participant data can easily be sorted in an Excel spreadsheet. Microsoft Word can also be utilized based on the type of information collected. Based on the NVivo software's design, the goal is to upload secure data to allow the software to assist the researcher in coding emerging themes and compile all the data collected into one database.

Leedy and Ormrod (2019) described the coding process as the initial creation of a predetermined list of categories that develop into meaningful units that will be individually coded. The researcher must be mindful of being too vague to allow for consistent, reliable data categorization. The researcher must also develop a final list of codes and subcodes while defining each code as succinctly and concretely as possible. Howard-Grenville et al. (2021)

addressed the need for specificity during the explanation of coding. Specificity helps the reader of the research to understand the researcher's thought process.

Once the codes, subcodes, and data are inputted into the software-assisted program, the researcher must study the data outputs and patterns. Using the NVivo system and developing codes and subcodes throughout Excel and Word, the researcher can quickly access codes and emergent themes across the data collected. Once the data are coded and methodologically managed, the researcher moved to the next step of interpreting the data.

Interpretations

Interpretation in qualitative analysis must strive for balance, fairness, and objectivity. During the data analytics interpretation, the researcher should ensure that their analysis and interpretations will ultimately be credible and defensible to peers, colleagues, and well-informed individuals (Leedy & Ormrod, 2019). During the interpretation process, the researcher takes the existing body of knowledge, collects data, and processes the themes and results to connect the existing knowledge and the new interpretations.

Robson and McCartan (2016) proposed the quality of a researcher's interpretation is based on the quality of the collected data, the ability to test the assumptions, and the ability to test the interpretations. The methodology for interpretation is the examination of the data, a temperature check for researcher bias, the utilization of triangulation, and an understanding of the knowledge base of the participants in the study. As previously discussed, one method to use during the interpretation portion of the data analytics is to provide a summary of proposed findings to the participants to test the validity of the interpretation.

Data Representation

Once the interpretations are completed, the researcher is challenged with presenting the data in an understandable format to the reader. A researcher can use items such as diagrams, charts, along with narrative explanations of the interpretations. Robson and McCartan (2016) recommended using chronological patterns to display data and utilize narratives to explain the relationships between the major data points. According to Creswell and Poth (2018), data representation allows the researcher to "tell the story of the data in a way which convinces the reader of the merit and trustworthiness of your analysis." The researcher used tables, charts, and narrative explanations for the data representation of revenue cycle management. The researcher could also fact-check and validate information from participant feedback, as there were multiple participants throughout the revenue cycle management process. The researcher also included a careful introspective reflection of possible beliefs that might have predisposed them to interpret the data in a particular way.

Analysis for Triangulation

Triangulation aims to provide credibility to the research study so that readers agree that its design and methods are appropriate for the research problem according to Shea (2022). The main premise of triangulation is the use of multiple data sources to test the data's reliability and validity while also ensuring credibility and trustworthiness. Shea (2022) further proposed that for a qualitative case study, multiple sources of evidence reflected case studies that were more highly rated in terms of their overall quality than those that relied on only single sources of information. Yin (2018) continued to explain the major rationale behind using multiple sources of evidence in case study research relates to the in-depth study of a phenomenon in its real-world context. Triangulation also provides the model for developing converging lines of inquiry.

For this qualitative case study, the researcher used data triangulation to collect interview data from multiple sources to corroborate the findings (Yin, 2018). Additionally, the researcher used the existing body of knowledge to bridge the gap with any potential new findings from the interview data to create a theory triangulation possibly. The result of triangulation should result in producing an honest and accurate view of the theme.

Summary of Data Analysis

All research and data analysis requires methodological and logical reasoning. Leedy and Ormrod (2019) described qualitative researchers using inductive reasoning while making specific observations throughout the data analysis process. Qualitative data analysis leads the researcher to be subjective and identify the patterns to seek to understand the phenomenon. Creswell and Poth (2018) shared that the goal of case study research is to thoroughly understand the presented phenomenon and draw conclusions tested for reliability and validity.

Reliability and Validity

The researcher organizes and utilizes an assessment strategy for the instruments used in the data collection. The researcher is also responsible for the analytics' validity and reliability for its intended purpose. Leedy and Ormrod (2018) described the importance of validity and reliability of the research assessment strategy as influences the extent to which the researcher can legitimately learn something about the studied research and draw meaningful conclusions from the data collected.

Reliability

The reliability of the data needs to be maximized and leveraged to remove bias. Yin (2018) proposed that using multiple sources of evidence increases the opportunity for the reliability of the data collected. Using multiple data sources creates a rationale for triangulating

the phenomena in question. Using multiple sources allows the researcher to develop converging lines of inquiry.

The researcher's main point of data collection will be from the semi-structured interview questions. However, the researcher can also use participant observation data to allow for triangulation points, as Creswell (2016) described. As there are multiple points of view and roles within revenue cycle management, the researcher can utilize both observations of the participants in relationship to their role and glean information from the data collected from the semi-structured interview questions.

A cornerstone of reliability within qualitative research is the trustworthiness or rigor of the overall project. Adler (2022) and Lincoln and Guba (1985) proposed that scientific measures should be used in qualitative research, and establishing trustworthiness in the form of credibility, transferability, dependability, and confirmability is necessary. Adler (2022) further proposed that trustworthiness and transparency are crucial to assessing qualitative research. Transparency can be achieved by detailing the research techniques. As qualitative research is highly variable and involves a sole researcher, it is more difficult to verify the research findings. At a minimum, the qualitative researcher must describe the theories and methods in detail and use triangulation for cross-checking.

Validity

The validity of the research based on the situation can use one of the types of validity strategies. There are a variety of types of validity. Sürücü and Maslakçi (2020) stated the two primary types of validity are inclusive of content and construct validity. Leedy and Ormrod (2019) also proposed there are additional types of validity such as face, content, and criterion. Face validity is like the face value of a subject matter. Face validity is the surface-level view of

what the research appears to yield. It is the lesser form of validity by itself. Content validity describes the extent to which the instrument adequately reflects the full breadth of the assessed characteristic. Criterion validity measures the assessment results and how the results correlate with the assessment of another phenomenon. Construct validity yields results regarding the phenomenon based on an assumption rather than direct observation.

Sürücü and Maslakçi (2020) also further defined validity as to whether the measuring instrument measures the behavior or quality it is intended to measure and is a measure of how well the measuring instrument performs its function. From the researcher's perspective validity is obtaining data that is appropriate for the intended use of the measuring instruments.

The researcher selected a minimum of 20 people throughout all phases of revenue cycle management. Plans to interview additional participants until the point of saturation are considered for any area of revenue cycle management that appears to have possible additional data collection needed. The challenge with semi-structured interview questions is ensuring the validity of the data. The importance of not varying the research questions is necessary to allow for consistency. Participant selection is necessary to ensure expert-quality data is collected. Creswell (2016) proposed triangulation is the best methodology for validating semi-structured interview questions.

Bracketing

The researcher's role in qualitative analysis is to focus on the emergent themes and common data points. As stated throughout this case study, the researcher must be mindful and not add the researcher's personal bias when interpreting the data. Creswell (2014) explained a researcher in the qualitative analysis must consider how their background, personal experiences, and culture could impact the interpretation of the data.

The use of bracketing is the researcher's responsibility to identify the assumptions within the study. Charron and Singh (2022) stated bracketing has been described as intentionally separating personal theories, research presuppositions, inherent knowledge, and assumptions about the subject matter from the observations made before and during the research process to achieve an objective framework. Bracketing is the combination of common themes and emergent topics throughout research. For this case study, bracketing can be utilized in grouping common and evolving themes. The grouping of data and themes allows the researcher to share the findings logically and methodically.

Summary of Reliability and Validity

The researcher ensured the research results were organized and structured methodically. Following the data analytics strategy, the researcher validated the consistency and accuracy of the data collected. The process allowed for the reliability and emergence of the theme of the phenomenon. It provided a process for the readers to have confidence in the credibility of the research results.

Summary of Section 2 and Transition

This project's qualitative case study research problem addressed the revenue cycle management process in healthcare in the specific Northwest Georgia region. With purposeful planning, data collection, and analysis, the researcher discovered emergent themes that assisted with interpretative data to address the research problem and questions. Section 2 included: a description of the role of the researcher, the research methodology, the participants included within the study, the population and sampling method, the data collection, organization, and analysis plan, and how the researcher addressed the reliability, validity, and triangulation of the study. Collaboratively, Section 1 and Section 2 prepared the researcher to successfully conduct

this qualitative research case study. The researcher began data collection following approval from the Liberty University School of Business and the IRB. The final section, Section 3, concludes the study and includes an overview, presentation of the findings, application to professional practice, recommendations for further study, and reflections.

Section 3: Application to Professional Practice and Implications for Change

Revenue cycle management and the financial viability of an organization are areas of focus for healthcare leaders. Tolliver and Gordon (2023) proposed successful revenue cycle management is a team effort that requires continuous collaboration across multiple departments of an organization. Additionally, Tolliver and Gordon (2023) further explained although organizations seek to base their strategy upon industry best practices, the way in which these goals are attained may vary greatly, based on unique workflows, workforces, and needs. The management of revenue cycle is further impacted by legislation and healthcare reform.

Issues with revenue integrity adoption, developing revenue strategy that balances quality care and outcomes, and use of data analytics further enhances the possibility of revenue deficits within a healthcare organization. MACRA legislation provides the platform for CMS (Centers of Medicare and Medicaid) to challenge the fee-for-service platform into a value-based reimbursement approach (Barnes, 2017). Understanding the complexities of revenue reimbursement is a challenge for any organization. Therefore, the purpose of this qualitative case study was to add to the body of knowledge to explore the possible inefficient insurance denial management process within non-profit hospital-owned physician practices resulting in possible revenue deficits for the provider clinics. Section 3 includes a presentation of the findings, application to professional practice, recommendations for further study, and reflections. The researcher organized the findings into themes from the participants' responses to the interview questions in Appendix A.

Overview of the Study

The researcher undertook a flexible qualitative case study to understand the role of healthcare team members in the management of possible inefficient insurance denial

management process within non-profit hospital-owned physician practices resulting in possible revenue deficits for the provider clinics. The researcher selected the North Georgia area as the setting for this study for three reasons. First, this region hosts a community that contains a non-profit hospital system in which a multi-specialty hospital employed physician group resides as a subsidiary of the main organizational system. Secondly, this organization has recently transitioned into system wide EMR implementation. Thirdly, this organization has a value-based strategy in place with recent participation in an accountable care organization model.

Presentation of the Findings

The purpose of this qualitative case study was to explore the possible inefficient insurance denial management process within non-profit hospital-owned physician practices, resulting in possible revenue deficits for the provider clinics. There are several ways to describe a qualitative case study. Creswell and Poth (2018) described qualitative study as a method that can define what is important and needs to be studied. McArdle (2022) further proposed a qualitative case study that allows the researcher to be flexible in their approach to the research. Yin (2015) shared a model leveraging interview methodology for a single case study allows a researcher one of the most significant sources of proof. Köhler et al. (2022) further claimed that utilizing a qualitative approach leverages the epistemological and ontological practices which were developed to investigate a wide range of social phenomena to address research issues in various settings. Health care has been described as a complex process throughout this research process. Additionally, health care is impacted externally and internally by a variety of factors. A qualitative case study allows the flexibility to adapt to the complexities of the health care industry and the nuances of the revenue cycle management process.

Within this case study data analysis began with identifying themes gleaned from the interview questions in alignment with the research questions represented in Appendix A. The research findings were obtained from multiple participants who shared thoughts surrounding possible barriers to revenue integrity adoption and the management of insurance denials within the revenue cycle process. Participants ranged from billers, coders, department leaders, physicians, and executive leadership who are directly related to portions of the revenue cycle management process. Participants were also identified as key stakeholders within the revenue cycle management process. The researcher used the concept of a revenue integrity program Brownfield et al. (2021) and the driving legislative change of MACRA to implement a value-based healthcare delivery system (Barnes, 2017) as the conceptual window through which the researcher interpreted the findings of this study. Section 3 include reflections on personal and professional growth and a Biblical perspective.

Themes Discovered

Using purposive sampling, the researcher obtained data from 14 participants in the clinic and hospital setting within the North Georgia region. Purposeful selection of participants occurred via the researcher's professional network. As the hospital employed physician clinics are a subsidiary to the main hospital organization, the researcher reasoned it was important to interview not only participants from the clinic setting, but key members from the hospital organization as well. These key stakeholders ranged from front-end users to executive leadership and would be able to provide the data needed for the research as experts in their respective job roles. Once selected, the researcher required the participants to sign an informed consent form indicating their voluntary participation in the study. Participants were also advised they could terminate their participation at any time. The data were collected from in-person interviews and

via secure email using semi-structured, open-ended questions until the researcher reached data saturation. Each in-person interview lasted 20 to 45 minutes in length. The in-person and electronic interviews were collected and analyzed using the interview protocol described in Appendix A. During the interviews, the researcher asked all the questions in the interview guide and supplemented them with any additional follow-up or probing questions to elicit further additional information from the participants. The researcher reached data saturation with this core group of 14 participants. It was found that by the 10th (tenth) participant no new emerging themes were discovered. The participants consisted of members involved in revenue cycle management including end users such as registration, billing, and coding; management such as practice managers and directors; and executive or C-suite leadership such as compliance, physician leadership, and executive leadership.

The researcher utilized Leedy and Ormrod's (2019) process which described qualitative analysis using inductive reasoning. Additionally, the researcher leveraged Robson and McCartan's (2016) proposal and guidance for the interpretation of data. Robson and McCartan (2016) stated the quality of a researcher's interpretation is based on the quality of the collected data, the ability to test the assumptions, and the ability to test the interpretations. The methodology for interpretation is the examination of the data, a temperature check for researcher bias, the utilization of triangulation, and an understanding of the knowledge base of the participants in the study. The researcher provided a summary of proposed findings to the participants to test the validity of the interpretation. Member checking returned positive validation of the summarized data.

The audio obtained from the semi structured interviews were transcribed in two modalities. One with the NVivo transcription service provided through the NVivo qualitative

software system. Second, with the researcher's ability to transcribe while conducting the interview. The researcher was a former medical transcriptionist early in her career. The researcher compared audio files with transcription from both modalities to ensure validity of the data. After all transcription was created using the same structured format, the transcripts were uploaded to the NVivo qualitative data analysis software. Thematic analysis proceeded utilizing NVivo software applications and manual coding by the researcher utilizing Leedy and Ormrod's (2019) approach of grouping the data into common themes. The themes discovered during the analysis of the semi-structured interviews and transcripts are as follows:

Theme 1: Complexities in Healthcare Creating Barriers to Potential Revenue

Theme 2: The Use of Data Analytics for the Identification of Trends

Theme 3: Resource Needs in Revenue Cycle Management.

Theme 4: Leadership Strategy in Revenue Cycle Management

After the identification of the themes, the transcripts were re-reviewed to search for possible subthemes within the data files. Subthemes became the subcodes in the coding system contained within the NVivo software system. The code table summarizing the themes for the entire study is shown in Table 1.

Table 1

Codebook

Research Question	Theme	Subtheme	Participants
RQ1 Do the key stakeholders have barriers to the adoption process?	Complexities in Healthcare Creating Barriers to Potential Revenue	Communication	P2, P3, P4, P6
RQ1a., RQ1b. Do you think certain actions are supported of management?		Silos	P1, P2, P7, P8
		Conflicting Agendas/Priorities	P1, P5, P7, P8
RQ1a; RQ1b How would you describe the efficient management of insurance denials?	The Use of Data Analytics for the Identification of Trends	Denial Trends	P1, P5, P7, P9, P11, P13, P14
How would you describe the inefficient management of insurance denials.		Denial Prevention	P1, P3, P5, P11, P14

Research Question	Theme	Subtheme	Participants
RQ1a., RQ1b. How does the organizational culture react to the management of insurance denials?	Resource Needs In RCM	Staff Vacancies	P5, P13
RQ1a., RQ1b. Who are the key stakeholders?		Knowledge	P6, P7, P9, P10
RQ1. RQ1b. How does the organ. culture react to the management of denials?	Leadership Strategy in RCM.	Software system	P4, P5, P8
Do you think there are differences between a non-profit and for-profit mentality surrounding the functions of the		Facility vs. Ambulatory	P4, P6, P8, P13

Research Question	Theme	Subtheme	Participants
revenue cycle management process?			

Interpretation of the Themes

Four themes emerged during the interview process. The themes include the potential barriers to the efficient management of insurance denials and revenue stream: (a) complexities in healthcare creating barriers to potential revenue, (b) the use of data analytics for the identification of trends, (c) resource needs in revenue cycle management, and (d) leadership strategy in revenue cycle management. The themes also resulted in subthemes to further explain the findings in the research. The subthemes included (a) communication, (b) silos, (c) conflicting agendas/priorities, (d) denial trends, (e) denial preventions, (f) staff vacancies, (g) knowledge, (h) software system, and (i) facility versus ambulatory. These themes and subthemes be discussed in further detail.

Theme 1: Complexities in Healthcare Creating Barriers to Potential Revenue. A vital concern in revenue cycle management is understanding the complex nature of the healthcare industry model. Johnson (2022) highlighted that revenue cycle management is a massive and growing industry. A recent market analysis by Grand View Research pegs the revenue cycle management (RCM) market in the United States at $140 billion in 2022, with a 10.3% forecasted annual growth through 2030. The market analysis further reveals by comparison revenue cycle management surpasses the market growth of the car and automobile market which is projected to increase by only 2.6%. The comparison highlights the pressure for the high volume of processing medical claims. Johnson (2022) further proposed when optimizing revenue cycle management there are competing agendas between the lucrative nature of medical

claims vying with core principles of mission statements, value, customer service, and well-being. Additionally, incumbents exploit complex payment formularies negotiated or arranged among payers, providers, and manufacturers to maximize profits. Within the semi-structured interviews similar subthemes occurred. These subthemes can also lead to barriers in the effective collection of revenue for services provided within the healthcare arena. Barriers include (a) communication, (b) silos, and (c) competing agendas.

Table 2

Complexities in Healthcare Creating Barriers to Potential Revenue

Theme	Participants	Excerpt
Communication	P2, P3, P4, P6	There is a lack of communication between revenue cycle team and clinical operations (P1).
Silos	P1, P2, P7, P8	Departments are supportive of their portion of RCM. There is a silo effect (P8).
Conflicting Agendas	P1, P5, P7, P8, P11	Conflicting agendas occur with the goals of two departments (P7).

Communication. Four (P2, P3, P4, and P6) of the 14 participants explain that department communication internally and externally creates a barrier to the efficient management of revenue cycle management. The participants described communication from the viewpoint of a patient as a customer, from the communication of expectations from leadership, and from the methodologies of how team members communicate regarding their assigned tasks and responsibilities. P1 explained there are many key stakeholders in the revenue cycle process including patients, front end staff, prior authorization specialists, clinicians, coders, and billers. For example, if a patient provides the wrong insurance information the entire process could be incorrect. If insurance is not verified by the front desk this error could then cause the clinician or provider to order labs that are out-of-network or not covered. If billers do not provide communication about errors, then the front desk will continue to make the same mistakes. P6 believed communication across the full spectrum of the process was vital. P6 said: “The

challenge is managing financials collaboratively with providers to help them understand what the numbers mean and how to effectively balance resources (time, staff, supplies, space, volume) with quality care." The participants emphasize the need for effective communication throughout the entire process. Lack of communication was stated to create a silo effect which was an additional subtheme.

Silo Effect. Four participants (P1, P2, P7, P8) further proposed that lack of communication creates a silo effect throughout the process of revenue cycle management and revenue integrity. P1 believes that the revenue cycle process involves everyone and for the effective management an organization should avoid department silos and compartmentalization of the processes. P5 said:

> But overall, that (revenue integrity adoption) responsibility must be dispersed throughout our organization because no one person can keep an eye on everything. And even amongst all of the leaders that we have that are involved in it, they still need help from their front-line people to get it right. We can't possibly oversee all the minutia that goes into revenue cycle integrity.

P1 further proposes that with an integrated electronic medical record system the barrier of siloed departments is further challenged and can be hard to deal with. The silo effect can create a "finger-pointing environment." "In the past, we did not want any clinical decision impacted by finance. That is just not possible. You cannot stay solvent if you cannot pay your bill. It takes tenacity and an understanding of business requirements both clinically and revenue cycle and how they fit together and the patience and the persistence to make sure we move into that direction. P8 advised with the system wide EMR implementation the organization has not been responsible for HB (facility) and PB which includes ambulatory on one platform. It has been

difficult for the facility team to remember to consider ambulatory in the process as it has been perceived the groups are siloed in their focus and communication. P2 shares that department silos limits communication and inhibits the employee's ability to have the proper tools and resources they need; therefore, it does hinder the performance and accuracy of the claims process. The participants emphasized the need to break down silos and to have consideration for all key stakeholders involved in a process and in the future continuing process improvement discussions.

Conflicting Agendas. Five participants (P1, P5, P7, P8, and P11) propose that conflicting agendas or variances in goals and focus can cause barriers to positive revenue flow. P7 advised that if the hospital (UB/facility) team and ambulatory (1500/PB) team cannot collaborate then you end up with ineffective management because you have two different objectives, and it is two different processes. P5 explained insurance payers have a conflicting agenda with the healthcare entity. P5 further stated,

> We don't have the same data that they (insurance payers) have, so they can aggregate data across organizations to figure out how to tweak down their payments to us in a manner that results in multiple billions of dollars of quarterly earnings for most of the big payers. They are very sophisticated in their data gathering and employment of decisions around the data.

P1 breaks down agendas to the individual stakeholders by stating,

> I think that sometimes business priorities from different stakeholders will throw roadblocks or make them blind in some areas. You need to look at each person you are working with and what are his or her business decisions telling you.

P8 proposed if everyone and everything worked together as it should this would be a seamless process or at least the most optimal. P11 highlighted another view of competing agendas from a patient perspective. P11 stated,

> I think there is the potential for bias. Front line people may want to take a patient advocacy standpoint, but overall, the team wants to capture all services provided. You will always have one provider who may be very compassionate and have a hard time charging for services that need to be guided by administration and compliance to ensure there are no exclusions.

The participants highlighted the need to understand and consider various goals and focus to avoid conflicting agendas.

Theme 2: The Use of Data Analytics for the Identification of Trends.

Table 3

The use of Data Analytics for the Identification of Trends

Theme	Participants	Excerpt
Denial Trends	P1, P5, P6, P9, P11, P13, P14	Analyzation by insurance plan you can see trends (P1)
Denial Prevention	P1, P3, P5, P11, P14	Review of analytics to catch trends to prevent it happening in the future and to celebrate success (P5).

Denial Trends. Seven participants (P1, P5, P7, P9, P11, P13, and P14) stressed the importance of using data analytics to understand the insurance denial trends which can cause a revenue deficit for the organization. P7 detailed one workflow to review denial trends. P7 shared:

> Because if you're not physically posting the payments, then you're depending on things to go into a queue, and you look at denial codes and responsibilities. I do think that you manage things by insurance plan and then denial reasons and then probably the total amount and prioritizing it based on where you're going get your biggest bang for your buck. But I also think that looking at denials management, if you analyze things by an insurance plan, then you're going to be able to see trends and issues that you have with a particular plan that you wouldn't see if you're taking it by total amount, by code, or denial code.

P11 speaks to utilizing data analytics for validation as well as trend analysis. P11 stated "I have always worked in a facility where we could run comparison reports and validate information such as charge revenue. We always made sure charges were entered and the documentation was appropriate." P13 speaks to the avoidance of understanding the denial trends can lead to revenue deficits. P13 stated "I think if there is a common denial and those are sent in a bucket and not worked timely, you lose more than finding a common denominator and fixing them. You'll lose them for timely." P14 continues to highlight the importance of trend analysis and how to utilize this methodology effectively. P14 states "Denials should be reviewed and categorized by the type of denial. Top denials should be shared with departments that are causing the errors. The process should be a team approach to reduce/eliminate reoccurring denials." Closely related to the discussion regarding data analytics and the use of data trends is to leverage the knowledge into a platform of denial prevention.

Denial Prevention. Five participants (P1, P3, P5, P11, and P14) explained the close correlation between denial trends to create steps for denial prevention. P1 stated,

> Because not only do we want to fix the denials currently in place, but also, we want to prevent future denials. Especially in the current setting, every denial beyond just a simple mistake needs to be managed in an integrated environment. This is not easy nor is it fast. In the future, your outcomes will improve based on the study of denials.

P11 further describes the need for denial prevention as a methodology for the efficient management of the issues causing potential revenue deficits. P11 states,

> I think efficient management of the issues would be handled quickly, and we would correct any behavior so that we would avoid denials in the future. I think everyone needs to be educated for the most common reasons such as out of network and prior authorizations. Educate everyone who is involved.

The participants overall shared potential cost savings when utilizing denial prevention as it decreases the amount of hours spent reworking denials in the revenue cycle management process. The participants spoke about the expenses in time and labor when reworking claim edits in comparison to a clean claim process. The clean claim process allows for a throughput of information with little to no involvement which results in the quickest reimbursement process. Every barrier or edit causes an issue with potential reimbursement, reduced revenue, or decreased profit margin when additional resources and staff expenses are extracted from the bottom line.

Theme 3: Resource Needs in Revenue Cycle Management.

Table 4

Resource Needs in Revenue Cycle Management

Theme	Participants	Excerpt
Staff Vacancies	P5, P13	It is hard to find people to fill the vacancies. (P5)
Knowledge	P6, P7, P9, P10	I think you must have the education. (P10)

Staff Vacancies. Two participants (P5, P13) spoke emphatically regarding staff vacancies impacting the ability to complete tasks within the revenue cycle management process, which then can cause issues with revenue stream and viability of the organization. Additionally, the participants spoke about the complexity of healthcare and the need to balance staff resources to seek the correct number of employees needed for a task. P5 referred to the everchanging payer rules displayed on the insurance website. P5 shared frustration at the insurance payors' lack of notification and explained the ludicrous solution of employing an employee to review payer websites just to identify the plethora of changes in payor rules. P5 further shared:

> We have outgrown our infrastructure and as good as the people we have on our team it is nearly impossible for them to keep up with all the moving pieces all the time. And even as much as we have smart, loyal, good people with experience who want to do the right thing, it is hard to find people to fill the vacancies. And when you are putting out one fire, it is hard to be proactive about keeping other fires from starting. So, I think that is something all health care systems are struggling with. It is a cost benefit scenario. How

> many people do you throw at the equation? Even when you are willing to throw the cost at it, if you cannot find the right people to do the work it is a huge challenge.

P13 shares concern there are not enough staff available in various roles throughout the revenue cycle process especially in the back-end function of the billing department. P13 states "I do not think our current organization is staffed appropriately. I do think they have been understaffed for a while. Understaffing then leads to staff turnover, stress, and burnout. However, I think that is really a problem everywhere." Staffing vacancies appear to be a significant barrier in the management of the revenue cycle process.

Knowledge. Four participants (P6, P7, P9, and P10) spoke to the knowledge of staff throughout the revenue cycle process. P6 highlights the variance in knowledge of the process between key stakeholders. P6 shares the following:

> Managers have varying levels of education, experience, or training in revenue cycle management. In general providers have an assumed knowledge of operational management and general lack of business management/operational management concepts. There can be lack of knowledge, understanding, and experience with business operations for the front-line staff as well.

P7 speaks to the importance of knowledge within revenue cycle management. P7 proposes:

> Revenue cycle management is the lifeblood of success or failure of any organization. And I think that especially for health care organizations it is such a complex process that if you don't have talented individuals doing the work you are going to leave tons of money on the table.

P9 shares the lack of knowledge is a barrier to the efficient management revenue.

> A lot of folks just do not understand the complexities there are from the billing, from the coding, and from a denial management perspective. Every payor has a little bit of a different twist and view so the processes and steps that you go through vary per payor.

Finally, P10 shares that having people who understand the pieces of the puzzle makes a big difference. P10 also shares that although money plays a part, it is important to help employees understand that we must take care of the patient. Knowledge of the complexities within the health care revenue process appears to be a necessary component.

Theme Four: Leadership Strategy in Revenue Cycle Management.

Table 5

Leadership Strategy in Revenue Cycle Management

Theme	Participants	Excerpt
Software System	P4. P5, P8	I don't think we had the systems in place to really help us to know what truly our denials were and how much it was. (P9)
Facility vs. Ambulatory	P4, P6, P8, P13	The facility focuses on high dollars whereas ambulatory has a high volume of smaller dollar claims. (P4)

Software System. Three participants (P4, P5, and P8) spoke about the implementation of a new integrated electronic medical record system recently at the organization. P5 shared thoughts about the previous information system. P5 stated that "I think our computer information system that we had for the last few years has greatly impeded our ability to efficiently manage insurance denials." P8 shared positive feedback regarding the new system in place by stating:

"The new system will bring efficiency. The new system has work queues, routes denials and edits to the appropriate team member. The intent is to provide feedback to the areas with recurring issues to anticipate an improved outcome." P4 also shared positive feedback regarding the new integrated system by proposing that revenue integrity will improve with the new EMR system over time. Additionally, P4 shares that key stakeholders can ensure charges are accurate and correct with the new system so there is no revenue left on the table.

Facility Versus Ambulatory. Four participants (P4, P6, P8, and P13) spoke about improving the overall strategy to recognize the various goals and differences between facility versus ambulatory. The views tie closely to the elimination of silos as mentioned in the above section. P4 refers again to the facility focus of high dollar accounts and less concern of smaller dollars. However, ambulatory has smaller dollar accounts and those are equally important to collect. P6 echoes a similar sentiment by stating that "Ambulatory philosophy is that every dollar matters versus HB/facility mentality of focusing on the high dollar/big ticket items." P8 again highlights the variance in dollar focus between ambulatory and facility; however, also adds it is difficult to find inclusion of ambulatory processes within the integrated EMR system with what is perceived to be a facility led mentality. P15 summaries the following variances between ambulatory and facility strategy:

> Ambulatory or the professional billing component attempts to look at every issue and try to get those small dollars. The hospital facility thinks differently. The facility doesn't really think the small dollars matter as long as they get paid the big dollars. The facility can also drive the prior authorizations at the facility which can impact ambulatory if not obtained which causes a revenue deficit for the clinics. It can be more difficult to find the issues in the high volume of ambulatory claims.

The participants encouraged inclusiveness in overall strategy while recognizing the nuances of department specific goals.

Representation and Visualization of the Data

The previous section evaluated the individual research questions while focusing on themes and subthemes articulated by the participants. The researcher created a coding table and discussed in detail each of the themes. To visualize these coding patterns, a word cloud map was created. Words used frequently during the study interviews provide a visual example of the complexities of revenue cycle management within the healthcare environment. Figure 8 represents a visualization of the frequency of words from the participants' interviews that are included in the results of the study to reflect content included in the themes that emerged.

Figure 8

Word Cloud Representing Frequency of Words Present in the Interview Transcripts

Relationship of the Findings

The following section further discusses the relationships and findings. The connections between the findings and the conceptual framework assisted the researcher in the investigation of the case study. In the creation of this case study themes and subthemes developed from the research questions during the interview sessions. These themes were examined and compared to the previous assumptions based on the literature review. The final analysis showed the relationship association between the findings and the problem statement.

The data obtained from the semi structured interviews with various members of the revenue cycle process revealed answers related to each of the research questions as demonstrated by the presentation of the findings of the case study. The participants were able to share their knowledge and viewpoint of the vital areas for consideration in addressing the potential revenue deficits of insurance denials in physician clinics. Most of the themes and subthemes presented are like other organizations within the health care industry. One example is leveraging automation within a software system. Eramo (2022) revealed revenue cycle automation continues to gain traction as healthcare organizations struggle to do more with less. The days of going to your boss and saying "I need 15 more people to work these accounts are over. I don't know where we are going to find 15 more people." The focus on denial management which includes data analytics and prevention is an excellent strategy for managing the impact of revenue deficits for an organization. Johnson (2022) shared similar thoughts of the participants and themes of the study when stating:

> Revenue cycle management (RCM) consumes enormous resources to optimize payer, provider and manufacturer revenues. Its gains, however, are zero-sum. As participants shift money between themselves, productivity declines, costs rise, and patient experience

suffers. High costs lead many consumers to forgo or minimize necessary care. There has to be a better way.

Overall, the findings and themes relate to the research questions, conceptual framework, literature, and the problem. These relationships will continue to be discussed.

The Research Questions

The participants' answers to the research questions assisted in the development of themes and subthemes. Based on the participants' role within revenue cycle management various themes could be related to the same research question. RQ1a., RQ1b: Do you think certain actions are supported by management created the two themes of complexities in health care creating barriers to potential revenue and resource needs in revenue cycle management as demonstrated in Table 1 *Codebook.* The researcher highlights individual's barriers to the revenue process, but also emphasizes a system barrier due to lack of staffing resources within the management process. The subthemes identified through this case study indicated the participants' organization shares common issues comparative to other industry concerns based on the literature results. With the use of similarly worded research questions the researcher was able to reach data saturation with common themes and subthemes which leads the researcher to believe the results are valid.

RQ1. Do the key stakeholders have barriers to the adoption process?

RQ1 explored the personal viewpoint of each of the participants understanding of their portion of the revenue cycle management process. This research question was a subset of the leading RQ1: What is your experience with revenue integrity adoption and who is involved in revenue integrity adoption? The subset question captured root causes for barriers that could potentially cause revenue deficits. RQ1 developed into the theme of complexities in healthcare. The theme emerged early in the research and is supported by literature. RQ1 allowed the

participants to speak to the barriers that are created from the complexities into two subthemes of communication and silos as identified in Table 2. These two subthemes articulated the root cause of issues directly and indirectly caused by complexities in the health care arena.

RQ1a, RQ1b. Do you think certain actions are supported of management?

RQ1a, RQ1b examined actions utilized by the end users in the revenue cycle management process and the viewpoint of leadership's support of these actions. The participants were asked to evaluate their experience within their portion of the process. This research question evaluates whether a specific action or several actions may contain a workflow process from a systematic approach can be used globally to enhance positive revenue outcomes. One theme and one subtheme were identified with the use of the research question. The use of data analytics for the identifications of trends was the identified theme. The subtheme further delineated the need to discover a root cause of possible revenue deficits. The subtheme was identified as (a) denial trends. Denial trends as a subtheme also assist with addressing the purpose of this study.

RQ1a, RQ1b. How would you describe the efficient (alternatively, inefficient) management of insurance denials?

Further exploring the purpose of this study, the description of the efficient and inefficient management of insurance denials also supported the emerging theme of (a) the use of data analytics for the identification of trends. Additionally, the subthemes of (a) denial trends and (b) denial prevention. At the core of the emerging themes and subthemes the research questions explored strategy and workflow processes designed to counteract possible revenue deficits within the management of revenue cycle processes.

RQ1a; RQ1b How does the organizational culture react to the management of insurance denials.

From a strategy and leadership perspective this research question delved into the culture of the organization. From this question emerged two themes (a) Resource needs in RCM and (b) Leadership Strategy in RCM. Understanding the knowledge and the culture of the organization assisted the purpose of the study to determine if any existing strategies or workflow processes were in place to reduce revenue deficits caused by insurance denials. Four subthemes developed from the primary themes which included (a) staff vacancies, (b) knowledge, (c) software system, and (d) facility versus ambulatory. The development of these themes and subthemes were also shared by the following two research questions.

RQ1a; RQ1b. Who are the key stakeholders?

This research question addresses the key members within the revenue cycle process that have critical responsibilities that can impact possible revenue deficits. Additionally, this question allowed the researcher to ensure all stakeholders had representation as a participant for the purposes of this study. The subtheme of (a) knowledge emerged at a higher percentage throughout the participants from this question.

RQ2 and RQ3. Do you think there are differences between a non-profit and for-profit mentality surrounding the functions of the revenue cycle process?

RQ2 and RQ3 provided the platform for further thought processes into the lens into which profitability is viewed. The question provided a chance for reflection which led back to the theme of (a) Leadership Strategy in RCM; and subthemes of (a) software system and (b) facility versus ambulatory. Although, there were variations of understanding overall of the similarities and differences between non-profit and for-profit statues; the additional reflection for

the revenue viability allowed the participants to speak to the above-mentioned themes and how they relate to the purpose of the study and leadership strategy to focus on revenue capture.

Relationship to the Conceptual Framework

The conceptual framework is the foundation of exploration for the researcher. From the foundation the researcher can explore linking existing theory and concepts to the findings of this qualitative research. Creswell and Poth (2018) proposed the conceptual framework describes and links the concepts, theories, actors, and principles. The primary concepts considered as the foundation for this case study included value-based reimbursement, revenue deficits, and revenue integrity. The supporting theories for the research are continuous process improvement, strategic management, and transformational leadership. An analysis of the themes and the relationship to the conceptual framework is described in the following paragraphs.

Continuous Process Improvement Theory. Ahn et al. (2021) described the use of lean management within health care organizations to generate continuous process improvement. Eight participants (P1, P3, P5, P7, P9, P11, P13, and P14) interview statements which were categorized by Theme two *The Use of Data Analytics for the Identification of Trends* and subthemes of *denial trends and denial prevention* relate to the continuous process improvement theory. The participants spoke to the identification of denial trends to ultimately create a denial prevention program. The participants postulated that denial prevention was a vital process improvement that could prevent revenue deficits within the insurance denial process of revenue cycle management. This process aligns with the continuous process improvement theory as described by Sunder and Kunnath (2020) who describes C.P.I. as the mold to advance performance and guide improvements in the workflow processes.

Strategic Management Theory. Strategic management theory is the premise in which a business in the early stages or more mature stage of a business model attempts to achieve economic viability, therefore, creating economic viability and value for the company, customers, and other key stakeholders (Höse et al., 2022). Theme 3 *Resource Needs in RCM* and Theme 4 *Leadership Strategy in RCM* both are intertwined with strategic management theory. Eight participants (P4, P5, P6, P7, P8, P9, P10, and P13) through their semi structure interviews spoke to items concerning strategic management theory. With subthemes (a) staff vacancies, (b) knowledge, and (c) software system, the participants shared target areas in which strategic management could focus on areas of vulnerability within the revenue cycle management process to find opportunities to improve. The recent implementation of an integrated electronic medical record system is a vital strategic step based on the participants response for the organization to leverage software analytics to identify areas of revenue opportunity. The subtheme of knowledge shared by the participants provides an avenue for leadership to view training modules and educational opportunities as a possible strategy. Thomas (2022) proposed organizations must ensure that RCM (revenue cycle management) staff receive appropriate education on the RCM steps and associated policies and procedures to understand and comply with organization expectations. Additionally, staff vacancies are another strategy for leadership consideration. Tolliver and Gordon (2023) stated,

> Every industry, from healthcare to food service, has felt the strain of employee recruitment and retention over the past few years. Employees who were left with a short-staffed team have experienced increased burdens, and consumers have experienced a decline in service levels.

Transformational Leadership Theory. Milhem et al. (2019) described transformational leadership as an opportunity for leaders to lead by example by bridging interdepartmental groups and ideologies. Theme one *Complexities in Healthcare Creating Barries to Potential Revenue* is heavily impacted by the transformational leadership theory based on the participants' responses. Eight participants (P1, P2, P3, P4, P5, P6, P7, and P8) speak to subthemes of (a) communication, (b) silos, and (c) conflicting agendas which could benefit from the transformational leadership theory. The participants of this case study discuss the barriers in which revenue deficits can occur. Furthermore, the participants describe the need for systemwide change to break down silos and understand the agendas of all parties and key stakeholders.

Hut (2023) described a transformational leadership case study in which a community hospital has established a dyad leadership structure in which a clinical leader has joint oversight of the revenue cycle process. The synergy they have established promotes the interests of all parties as the patient engages with the health system leading up to a care episode. Leveraging transformational leadership appears to be vital to make improvements in the barriers provided by the participant pool.

Relationship to Anticipated Themes

The findings from this case study were comparable to the anticipated themes. The underlying concern for revenue deficits and pitfalls is a major anticipated theme with equal consideration in the case study findings. When discussing a focus on quality versus production, changes in physician compensation models, changes in reimbursement amounts, and the ability to collect on services provided revenue deficits can occur (Slater et al., 2022). The findings of this study did support concern for revenue deficits from multiple barrier sources demonstrated in

Tables 2 – 5. However, one anticipated theme missing from the findings of this case study was the impact of physician compensation and how it relates to the net profit margins.

Another anticipated theme was insurance claim denial management and prevention which occurred in the findings of this case study. Bowman et al. (2019) spoke specifically to the need for a denial management and prevention program as a best practice standard in the prevention of revenue deficits. The findings in this case study in Table 3 specifically address denial trends and denial prevention. However, in the findings of this case study there are barriers to the best practice standards due to communication, silos, software systems, conflicting agendas, and knowledge as demonstrated in Tables 2 – 5.

Relationship to the Literature

The case study findings are compared to the literature review in this relationship to the literature section to find potential similarities and differences. The relationship between the literature view and the findings (themes) attempts to triangulate the data for validity purposes. In this case study there is a correlation between anticipated themes and the literature review. In contrast there were some limited to missing themes in the findings.

Insurance denials and denial prevention were the primary similarity between the literature review and the findings of the case study. The participants spoke about insurance denials as revenue deficits for the organization. The literature review had similar findings as Reiner (2018) proposed that insurance claim denials cause significant revenue leakage points for healthcare providers. Both the participants and the literature review spoke to the similar reasons for insurance denials that can occur at registration, prior authorizations not obtained, medical necessity or clinical documentation issues, and coding issues. Denial prevention was proposed as an efficient management of insurance denials by the participants. The prevention model is also

supported by the literature review findings. Bowman et al. (2019) proposed the proactive management of denials is preferred to the reactive management which should decrease the amount of uncollected reimbursement dollars.

Disparate software systems was another commonality between the participants' findings and the literature review. Reiner (2018) shared disparate systems and processes can cause denials. The participants shared that prior to the implementation of a new integrated software system the disparate systems caused a problem with the data analytics and trend analysis.

Another commonality between the findings and the literature review is withing the actions or culture of the organization concerning internal silos and strategic focus. Many of the participants spoke about the lack of communication and the silos within departmental groups. Bowman et al. (2019) from the literature view supported these findings by stating the execution of strategic initiatives may be lacking due to the internal silos. The findings of the study revealed many of the participants spoke to everyone's involvement for the best outcome of the RCM process. The literature review echoed this sentiment when proposing a partnership between physicians and coders as an example of collaboration (Cascardo, 2018). Additionally, the participants spoke to competing agendas using the example of a facility versus ambulatory based approach. The participants spoke of the need to increase collaborative efforts for the benefit of the organization. Eramo (2022) supported this illustration with the creation of a shared services model between hospital and physician services by consolidating leadership, teams, technologies, and vendors across functional areas that support both the hospital and physician revenue cycle processes such as pre-arrival and coding services. A key strategy offered by the findings and the literature is the use of communication. Ratna (2019) spoke to effective communication as a bi-directional process in which both parties understand the needs of the other.

Data analytics is another common theme between the findings and the literature review results. Both the participants and the literature support the use of data analytics to monitor key performance indicators to understand root causes and errors to provide feedback from a denial prevention methodology. Cascardo (2017) supported the findings provided by the participant in gathering data analytics to review trends and critical key metrics to measure the effectiveness of the performance of those involved in RCM. Both the participants and the findings speak to the robust nature of the insurance payors' analytics.

The adoption of a revenue integrity program was a theme that has limited results in the findings. Although, the participants could speak to the need for revenue integrity in general, there was an overall limited understanding of the full scope of a revenue integrity adoption program. The literature review supports this finding as Mattie et al. (2020) shared formal university-based training for compliance professionals within the industry remains scarce.

Some of the participants felt there were resources lacking such as staff vacancies to be able to complete all the tasks required during the revenue cycle process. Employee engagement was a similar but contrasting view from the literature results. Both the findings and employee engagement from the literature speak to decreasing resources which causes hardship for the employees (Sexton et al., 2018). Sexton et al. (2018) further supported transformation leadership strategies such as leadership rounding to foster workplace efficiency and improve staff resiliency. The findings of the case study speak to the problems and the need for change, but do not specify a specific strategy such as transformational leadership.

Missing themes from the findings that were discovered in the literature included artificial intelligence and the use of value-based models as a strategy. In the literature, Johnson et al. (2021) hypothesized that using artificial intelligence adoption programs improved the revenue

and reduced costs for more than 62% of executives participating in a case study under their review. The research findings of this case study did not reveal any of the participants to specifically refer to artificial intelligence as a possibility of efficiencies within the RCM process. Additionally, even though the organization's multi-specialty hospital employed physician services group was a member of an accountable care organization the research questions did not prompt any findings in relation to this model; whereas, in contrast the literature speaks to the shift of fee-from-service to value-based as an impact to the overall RCM functions as insurance payers have begun the push for quality metrics (Barnes, 2017).

Relationship to the Problem

The general problem addressed by this study was the inefficient adoption of a revenue integrity program within the revenue cycle management process resulting in a revenue deficit for healthcare providers. Creswell and Poth (2018) shared the research problem is the issue or concern that leads to a need to conduct the study. A health care entity must remain financially viable to continue to operate daily. Bowman et al. (2019) spoke to the need to mitigate financial risk in the form of insurance denial management and acknowledges that based on the complexities of healthcare this can be an inefficient process. Therefore, the specific problem to be addressed in this case study was to explore the possible inefficient insurance denial management process within non-profit hospital-owned physician practices resulting in revenue deficits for the provider clinics. The research and findings of this case study addressed the problem by conducting participant semi-structured interviews that revealed and supported the complexities in healthcare. Creswell and Poth (2018) proposed the research questions and findings should address and answer the problem selected. In this case study, the participants addressed the barriers and causes for an inefficient revenue cycle management process and the

impact to revenue in not only the physician clinics, but the hospital setting. The data analysis's conclusions and results shared the participants' findings from key stakeholders which connected to the problem of the study.

Summary of the Findings

The purpose of this flexible qualitative case study was to add the body of knowledge about the possible inefficient insurance denial management process within non-profit hospital-owned physician practices resulting in revenue deficits for the provider clinics. The researcher elected to utilize a qualitative case study to understand the root causes or possible barriers to the efficient insurance denial management process in reducing revenue deficits. The research and findings provide a comprehensive analysis of the experience and knowledge of key stakeholders throughout the revenue cycle management process in which a plethora of root causes and barriers were shared by the participants.

The key findings of this study provided instrumental insight into the barriers of revenue cycle management in the form of the four themes of (a) complexities in healthcare creating barriers to potential revenue, (b) the use of data analytics for the identification of trends, (c) resource needs in RCM, and (e) leadership strategy in RCM. Overall, these were comparable to the anticipated themes and literature review except for missing or limited themes of artificial intelligence, impact of physician compensation models, or accountable care organization models. Findings did suggest a newly integrated electronic medical record system coupled with a denial prevention program would be needed to improve denial management. Additionally, a focus of a systematic approach to communication and the tearing down of silos was perceived to be a needed measure. Finally, filling staff vacancies was a result considered for the efficient

management of revenue deficits. An examination of the findings correlated with the relationship to the conceptual framework, research questions, and existing literature.

Application to Professional Practice

The purpose of this flexible qualitative single case study was to add to the body of knowledge about the possible inefficient insurance denial management process within non-profit hospital-owned physician practices resulting in revenue deficits for the provider clinics. The findings of the research can then be applied strategies to the revenue cycle management process. Involvement of the key stakeholders for strategic implementation is a vital component for continuous process improvement and change management. The researcher will discuss suggestions for improving general business practice in revenue cycle management.

Improving General Business Practice

The findings of this flexible qualitative single case study could have significant implications for improving general business practices in revenue cycle management. One focus area is communication within the various departments within the revenue cycle process for the prevention of silos. H.F.M.A. (2019) identified potential leakage points and potential loss of revenue as a direct result from lack of communication and silos between department areas such as registration, clinical operations, coding, and business office teams. Ratna (2019) shares that effective communication requires both parties to understand the purpose of the information conveyed. Participants shared lack of communication as an area of concern within the revenue cycle process which causes lack of feedback to correct errors, divided focus of priorities, and a feeling of being siloed. Therefore, leadership should adopt strategies to improve communication throughout the members of revenue cycle management.

Another area of focus is knowledge. The findings of this study indicate the organization has varying levels of knowledge, training, and education. However, the findings show that there are opportunities throughout various team members in the revenue cycle management process for additional training or education based on the job role. Specifically, participants spoke to the importance of members such as registration, coding, physicians, billing, and management understanding what is expected of them within their job role and the need for appropriate training. Burks et al. (2022) proposed the literature indicates that a high rate of physician coding error can be attributed to inadequate training within residency and fellowship training. The literature further shares documentation is required by CMS. Additionally, the Office of Inspector General places the responsibility and accountability for accurate billing squarely on the provider.

A third area of focus is staff resources. Tolliver and Gordon (2023) shared organizations consider outsourcing portions of the revenue cycle management process such as billing due to staffing shortages and turnover. Eramo (2022) also shared coder shortages and patient access turnover has been an area of concern for a hospital system in South Dakota. Although the system has replaced seven out of ten inpatient coders it can take a full year to train staff, which leaves a void in the process. The participants shared staff shortages in multiple areas causes workflow to be impacted which can result in loss of revenue if items are not completed in a timely manner. Participants also shared limited staff can create an environment where staff feel stressed with burn out symptoms.

A fourth area of focus is the importance of data analytics. Holyoak (2017b) recommended the utilization of data analytics with all team members throughout the revenue cycle management process. Additionally, Holyoak (20017b) recommended data analytics is at the heart of creating a denial management program with the use of trending data. The

participants within the study also shared similar thoughts of utilizing data analytics for the identification of trends for a denial prevention program.

A final area of focus is revenue integrity and compliance. Thomas (2022) proposed "robust revenue cycle management processes are critical to an organization's success, not only from a financial perspective, but also as they relate to patient care delivery and organizational compliance." The participants in the study shared limited to in-depth knowledge of a revenue integrity program but did speak to the importance of the accurate charge capture along with proper clinical documentation. The participants also spoke about the medically necessary adherence for services provided and the need to capture all revenue for those same services.

Potential Application Strategies

In keeping with the suggestions and improvements to general business practices for revenue cycle management, the findings of the study also offer potential application strategies that organizations can use to utilize the findings of the study.

Effective communication is an important aspect in any business industry. Hut (2023) shared a case study in which a healthcare organization revamped its revenue cycle leadership structure for the benefit of patients and the organization. The organization incorporated physician leadership to foster integration between the clinical and financial arms of RCM. The organization began with fostering improved communication between the clinical team and prior authorization. Hut (2023) further proposed the organization never had those conversations before. The result of improved communication was an increased level of advocacy and partnership available for the patients and physicians. The increased collaboration assisted with cutting through the cultural red tape by fostering improved communication with the clinical and financial teams. The findings

recommend using a similar strategy in any identified siloed areas to foster improved communication for improved outcomes.

Knowledge and training are a foundational cornerstone for the success of any business industry. Due to the complexities of healthcare this can heighten the challenge of this strategic initiative. Burks et al. (2022) shared in a case study the importance of training to physicians, coders, and billers is vital to reimbursement and compliance. Due to time constraints within a clinic setting some physicians rely on professional coding and billing staff to process patient medical claims and never review their billing forms. This practice prevents learning through feedback. Feedback is an effective method to improve accuracy and is also critical to continuous process improvement and change management.

Pollock (2013) shared the goal is to have the right tasks performed by the right number of people at the right time and with the right tools to optimize revenue. However, the healthcare industry is like other industries when discussing employee recruitment and retention. Tolliver and Gordon (2023) shared when recruiting for revenue cycle management team members it is not necessary to be a RCM expert, but one must understand the characteristics needed for a successful revenue cycle are important when cultivating the best team. Additionally, RCM team members are not limited to the billing staff. RCM team members include front desk workers, prior authorization specialists, and medical coders. An organization who may have varied leadership governing these functions may need to consider a shared playbook for RCM characteristic traits such as excellent communication skills, being a right fit for the team, and practical skills assessments.

The participants of the study emphasized data analytics as an integral strategic initiative for the creation of a denial prevention program. One recommendation is to consolidate a

collaborative initiative sharing knowledge through the layers of RCM for improved outcomes throughout the silos of the process. Bowman et al. (2019) shared a best practice for mitigating financial risk is a proactive and preventative versus a reactive approach to denials management using claims data for denials prevention.

When reviewing potential revenue integrity and compliance strategies, the first step is ensuring everyone involved in the process understands the basic definition and expectations for compliance. Tolliver and Gordon (2023) recommended on many RCM teams having a "compliance guru" is essential to moving a platform toward success. Tolliver and Gordon (2023) continued to explain this individual is the person who does everything "by the book." This individual has a thorough understanding of the guidelines and ensures that peers are aware of the rules and regulations. When applying this thought process, the recommendation would be to have this type of individual throughout each segment of the process to ensure policies and procedures are changed appropriately, compliance changes are shared with the team, and everyone is sharing the same strategic vision.

Summary of Application to Professional Practice

The findings from the research can be applied to the professional practice of revenue cycle management strategies in the healthcare industry. Additionally, the researcher discussed the implications and strategies for improving general business practice in revenue cycle management within the healthcare industry. These implications and strategies include focusing on effective communication to break down silos, reviewing staffing resource requirements, and data analytics. Additionally, ensuring a global understanding of revenue integrity and compliance is understood throughout all team members of the revenue cycle management

process is a vital component. The following section will outline future recommendations for further study, personal reflections of the study, and biblical applications.

Recommendations for Further Study

The findings of this study show that healthcare processes are complex. Though this study examined revenue cycle management due to the complexities of healthcare, further studies should investigate areas of patient experience and the use of automation in the process. Additionally, further studies should be conducted to explore the revenue cycle employee engagement and the effectiveness of reducing turnover.

Johnson et al. (2021) proposed that patient experience is playing a larger role in revenue cycle management. Johnson et al. (2021) polled several healthcare leaders on strategies to increase the patient's experience through the lens of revenue cycle management. Items such as price transparency coupled with the use of automated price estimation tools can reduce staffing time while also providing patients with an estimate of what they could expect to pay for their care services. The goal is to create a platform in which the patient financial experience could be enough of a differentiating factor that builds loyalty from the customer.

Automation is another recommended strategy in RCM in areas to support a denial management prevention program or support areas with staffing shortages. Romeo (2019) shared many denials are avoidable. Correcting the avoidable denials will produce an immediate return to the bottom line while also streamlining operations and save time that can be put back into staff time to focus on other areas of denial management and prevention.

As the healthcare industry continues to move toward adopting value-based care, organizations and clinics are driven to find strategies and solutions to reduce cost while still providing high-quality services (Blumenthal et al., 2020). As salaries and benefits can be an area

of focus to reduce costs there is a balance in understanding the right number of staff needed for a particular service line. Singh (2019) stated recent trends reflect that organizations are beginning to understand the importance of employee retention and value of skilled employees by devoting resources to focus on employee retention and engagement. The findings from the participants in this study shared the skill set and knowledge required by members of the revenue cycle management process while also expressing there are staffing shortages.

Reflections

I interviewed fourteen participants who had a variety of job roles and functions within the revenue cycle management process within a healthcare system in the North Georgia area that also contained an employed multi-specialty physician group as a subsidiary. The participants' roles were inclusive of front desk, billing, coding, management, analytics, and executive leadership. My bias toward the organization did not impact the findings of this investigation. The following sections will review my personal and professional growth and reflect on the Biblical implications of the results of this study.

Personal & Professional Growth

The research process regarding the subject of revenue cycle management has helped me from a personal and professional standpoint. This study has helped me remove any preconceptions regarding the subject matter of revenue cycle management. The study has helped me further understand the complexities of healthcare as an industry and the need for continuous process improvement to face the challenges of reimbursement of revenue for the financial viability of provider clinics and the hospital system. This study has also provided me with an avenue of greater appreciation for the root causes, problems, and opportunities within the revenue cycle management process. Additionally, this study has provided me with a viewpoint

into the roles and responsibilities others have within this complex process. I now more fully appreciate and understand the complexities leading to potential barriers to revenue within the management process.

The project has provided me an opportunity to collaborate closely with team members, colleagues, and leaders within the revenue cycle management process. This opportunity has allowed me to collect data and develop a conceptual framework of understanding. From this platform I have the honor and privilege to see the process through other individual's viewpoint of the subject matter. The study's findings highlight areas for prescriptive strategies that may be used to enhance communication and focus on areas of opportunity to increase revenue. The project participants have opened a pathway for further collaboration and potential additional research opportunities. Research is a complex process requiring perseverance, an open mind set, and attention to detail. The research on this case study has allowed me to develop these attributes further and receive a sense of accomplishment when seeing the project through to its conclusion.

Biblical Perspective

In God's word we find our guidance regarding the principles for our purpose, financial stewardship, leadership, and care for one another. Revenue cycle management is a vehicle in which each team member can practice all these principles through fulfilling our purpose He has guided us to perform.

Jeremiah 29:11 states "For I know the thoughts that I think toward you, says the Lord, thoughts of peace and not of evil, to give you a future and a hope." God has a plan for each of His children. When we trust in His plan, we can fulfill our purpose. Additionally Proverbs 19:21 states "there are many plans in a man's heart, nevertheless the Lord's counsel – that will stand." In business practice we discuss finding each person "the right seat on the bus." This verse guides

us when reviewing each team member's role for revenue cycle management. Finding our true purpose will allow us to thrive in our correct role to give God the glory.

Psalm 24:1 state "The earth is the Lord's and all its fullness, the world and those who dwell therein." From this verse we are guided as caretakers of the world and those contained within it. We also acknowledge that everything we have belongs to God. We also learn from this verse our accountability to prioritize our financial decision according to God's will. Financial stewardship in revenue cycle is also the vehicle in which any member involved can watchguard the finances of the company, and care for the patient. Additionally, we can care for the well-being of each team member throughout the process.

An individual may find difficulty in aligning Biblical principles while working in the world of business. The healthcare industry provides a service to patients who need healing. Fundamentally the healthcare organization must also be financially viable to provide these services. Leading in a business environment when aligning Biblical principles can bring great joy when working in service to God. 1 Peter 4: 10 – 11 states,

> As each one has received a gift, minister it to one another, as good stewards of the manifold grace of God. If anyone speaks, let him speak as the oracles of God. If anyone ministers, let him do it as with the ability which God supplies, that in all things God may be glorified through Jesus Christ, to whom belong the glory and the dominion forever and ever. Amen.

When viewing leadership through God's viewpoint we can apply his principles we can promote a servant leadership application. In healthcare serving others such as the mission of the organization, the patient, and co-works can bring fulfillment when applying God's word through our action and deeds.

Revenue cycle management within the healthcare industry is again a service industry. The organization provides a service to the patient and family members within a community. The Bible shares many commandments to a child of God for providing care and compassion for those around them. Matthew 25:40 states “And the King will answer and say to them, Assuredly, I say to you, inasmuch as you did it to one of the least of these My brethren, you did to Me.” Another directive is found in Philippians 2:4 shares “Let each of you look out not only for his own interests, but also for the interest of others.” Salem Baptist, a local community church, has a mission statement that is applicable when creating a collaborative service mission within revenue cycle management. The mission statement states,

> Lord let me live from day to day in such a self-forgetful way that even when I knee to pray my prayer shall be for others. Others, Lord, yes others, let this my motto be. Lord, let me live for others so I may live like Thee. (Salem Baptist Church, 2024)

Viewing our job roles in a business environment through a Biblical viewpoint is vital to fulfill our purpose. Through reading the Bible we can be diligent to follow God’s commandments God has not called us to fit in, but to fulfill his purpose. 1 Peter 2:9 states “But you are a chosen generation, a royal priesthood, a holy nation, His own special people, that you may proclaim the praises of Him who called you out of darkness into His marvelous light.”

Summary of Reflections

Improving financial viability and decreasing potential revenue deficits through the service industry of healthcare has guidance through scriptural teachings. When applying Biblical principles through God’s word we can practice our faith by fulfilling our purpose in our work, practicing financial stewardship, and providing care and compassion to those we encounter. By exemplifying God’s purpose in our life, we can share our faith and mission daily.

Summary of Section 3

The researcher embarked on a flexible qualitative case study to understand the role of healthcare team members in the management of possible inefficient insurance denial management process within non-profit hospital-owned physician practices resulting in possible revenue deficits for the provider clinics. The research findings provide a thorough analysis of the revenue cycle management process through the lens of each of the participants. The participants shared thoughts surrounding potential leakage points such as silos, staff shortages, knowledge, and communication. Additionally, the findings also revealed additional areas of future research including artificial intelligence, patient experience, and staff recruitment and retention. In Section 3, the researcher provided the details of the findings and shared an analysis of the data. The findings of the study provided insight into the potential revenue deficits within revenue cycle management. The researcher also shared implications for general business practice, future recommended studies, personal reflections, and biblical implications based on the findings.

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Appendix A: Interview Guide/Protocol

Revenue Cycle Management

Section 1:

Date/time:

Place and type of interview: (in-person, telephone, web-based).

Interviewer:

Interviewee: (Name used only for follow-up and member checking. Omitted from the study).

Job title of interviewee:

Participant #: (Utilized in narrative descriptions and quotes).

Consent: Yes/No

Introduction: Thank you so much for speaking with me today. As a reminder, my name is Mary Scalf, and I am pursuing a doctoral degree in Business Administration with a concentration in Finance at Liberty University. This research project explored the possible inefficient insurance denial management process within non-profit hospital-owned physician practices resulting in revenue deficits for the provider clinics. You were selected to participate in this study because you are represented as a leader or team member of a specific portion of the revenue cycle management process. Your participation is completely voluntary, and you may choose not to respond to any question that makes you feel uncomfortable or end this interview at any time during the process. I am recording this interview to ensure I capture your responses accurately. I will keep the audio files and transcribed interview notes in a password-protected document on a password-protected computer to ensure your confidentiality and destroy all files three years after completing this dissertation. In the future, I will reference this interview with your participant number only. I appreciate your time and will keep this interview 30 - 45 minutes.

Section 2:

1. How long have you worked in your organization? **[ice breaker]**
    a. In what roles?
2. What role do you have in revenue cycle management functions? **[background]**
3. What is your experience with revenue integrity adoption? **[RQ1]**
4. Who is involved in revenue integrity adoption? **[RQ 1]**
    a. Do the key stakeholders have barriers to the adoption process?
5. What are insurance denials? **[RQ 1a., RQ 1b]**
6. How would you describe the efficient management of insurance denials? **[RQ 1a., RQ 1b]**
    a. Who are the key stakeholders?
7. Alternatively, how would you describe the inefficient management of insurance denials? **[RQ 1a., RQ 1b]**
    a. Who are the key stakeholders?
8. How does the organizational culture react to the management of insurance denials? **[RQ 1a., RQ 1b]**
    a. Do you think certain actions are supportive of management?
9. What are your thoughts on non-profit entities concerning revenue cycle management? **[RQ 2 and RQ3]**
10. Do you think there are differences between a non-profit and for-profit mentality surrounding the functions of the revenue cycle management process? **[RQ 2 and RQ3]**
11. Is there anything else you want to add regarding the revenue cycle management process? **[closing transition]**

Closing:

Again, thank you for participating in this interview and sharing your valuable insights. Your responses will remain confidential. The response allows me to understand better revenue cycle management, specifically in the Northwest Georgia region. If, in retrospect, you have additional questions about the project or you wish to share any additional information, please do not hesitate to contact me. Also, would you be available for follow-up questions? Additionally, would you be interested in reviewing my analysis of the data before submitting my findings?

Appendix B: IRB Approval Letter

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

November 14, 2023

Mary Scalf
Katherine Hyatt

Re: IRB Exemption - IRB-FY23-24-508 Revenue Cycle Management

Dear Mary Scalf, Katherine Hyatt,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

For a PDF of your exemption letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study details page. Finally, click Initial under Submission Type and choose the Letters tab toward the bottom of the Submission Details page. Your information sheet and final versions of your study documents can also be found on the same page under the Attachments tab.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,
G. Michele Baker, PhD, CIP
Administrative Chair
Research Ethics Office