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Organizational Strategies to Reduce Hospital Readmissions

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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2018

Abstract

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MBA, Saint Louis University, 2010

BS, Saint Louis University, 2008

Doctoral Study Submitted in Partial Fulfillment

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Abstract

Reducing hospital readmissions is critical to the success and sustainability of both hospitals and the communities in which they reside. The purpose of this multiple case study was to explore organizational strategies hospital leaders use to reduce hospital readmissions. The study was limited to hospitals in Southwest Missouri with readmission rates below the state average. Complex adaptive systems was the conceptual framework for the study because of the complex nature and numerous stakeholders of the healthcare system. Data were collected from a purposive sample of 15 hospital leaders via semistructured interviews and an analysis of organizational artifacts. Member checking was used to increase reliability and validity of the results. Data analysis was conducted using Yin's 5 step process including qualitative analysis software to identify major and core themes. The major themes identified in the study included population health, hospital operations and patient interactions, leadership and mission, and barriers to reducing readmissions. The implications for positive social change include the potential to improve services hospital team members provide to patients, which may improve the overall health of the communities they serve. By promoting improved health outcomes for local communities, society benefits through reduction of costs to the federal government and an overall improvement in the health of communities.

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Dedication

This study is dedicated to the Warchol family lineage, without whom, I would not be who or where I am today. I am thankful for the love and support of my wife, parents, siblings, friends, and the faithful departed. Thank you to all of you who were willing to listen to me ramble over a drink and provide words of encouragement. I would like to make specific mention of my wife, Shannon, who has been with me through the whole journey. She was able to calm me in times of frustration–of which there were many–and multiply my joy in times of celebration. Thank you.

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I would like to acknowledge Dr. Roger Mayer for his constant support and guidance through this journey. Our weekly calls knew no bounds including the occasional holiday. Having your support helped me keep my focus and drive. Additionally, I would like to thank Dr. Robert Miller and Dr. Matthew Knight for their incredible insights and support throughout the review process. Lastly, I would like to acknowledge Jen Tebbe who helped my find my scholarly voice. Like healthcare, I needed the collaboration of an expert team to make this a success.

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Section 1: Foundation of the Study

Hospital leaders encounter a myriad of changes in the current business landscape because of regulatory changes to the U.S. healthcare system. One of the changes to which hospital leaders must adapt is the transition from a fee-for-service reimbursement model to a pay-for-performance model (Volland, 2014). One element of the pay-for-performance model is the reimbursement reduction to hospitals for excess readmissions (Jha, 2015). To respond to this reimbursement change, hospital leaders must implement initiatives and strategies to reduce patient readmissions from their facility. The purpose of this study was to explore organizational strategies hospital leaders use to reduce hospital readmissions.

Background of the Problem

Reducing hospital readmissions is critical to the success and sustainability of both hospitals and the communities in which they reside. Approximately 20% of all patients who have Medicare as their primary payer return in 30 days of leaving the hospital (Kirsch, Kothari, Ausloos, Gundrum, & Kallies, 2015). Causes for patient readmissions vary depending on the patient; however, the quality of care patients receive from a hospital can affect the likelihood of a readmission (Gu et al., 2014). The federal government can reduce Medicare payments by up to 3% to hospitals with excessive readmissions rates (Jha, 2015). Hospital leaders need to identify organizational strategies that can reduce readmission rates for patients, thus mitigating the negative financial impact of excessive readmissions.

Identifying successful organizational strategies to reduce readmissions is a difficult but necessary task for hospital leaders. Ahmad, Metlay, Barg, Henderson, and Werner (2013) stated hospital leaders identified reducing readmissions as one of the top five priorities for their facility. Hospital leaders must consider multiple stakeholders, both internal and external, when analyzing possible readmission reduction programs. Additionally, hospital leaders do not operate in isolation from the business environment, which forces leaders to be cognizant of not only patient treatment options, but also the competitive business nature. Additional research into hospital leaders' organizational strategies to reduce readmissions is essential to identify which organizational strategies are successful and to explore industry best practices.

Problem Statement

Hospitals are at risk of losing reimbursement from the federal government because of excessive readmissions (Winborn, Alencherril, & Pagán, 2014). The annual cost of readmissions to the U.S. healthcare system is approximately $17.4 billion a year (Ahmad et al., 2013). The general business problem was that hospital leaders encounter financial risk because of chronic diseases resulting in excessive patient readmissions. The specific business problem was that some hospital leaders lack the organizational strategies to reduce readmission rates.

Purpose Statement

The purpose of this qualitative multiple case study was to explore organizational strategies hospital leaders use to reduce readmission rates. The population included eight C-suite and seven manager level team members from six hospitals located in Southwest

Missouri who have identified and implemented organizational strategies that reduce

readmission rates. The potential for positive social change from the findings of this study

could include a decrease in the financial burden on the national healthcare system,

improved patient outcomes, and an increase in community-based health initiatives.

Nature of the Study

When conducting research, scholars utilize one of three primary research

methods, including qualitative, quantitative, and mixed methods. Researchers use the

qualitative method to explore the *what*, *how*, and *why* of a phenomenon or situation

(Crocker et al., 2014). Researchers use quantitative methods to examine relationships or

differences among variables with statistical analysis (McCusker & Gunaydin, 2015). The

mixed method is a combination of both the qualitative and quantitative methods

(Kavanoz, 2017). For this study, I did not use any form of numerical data collection or

inferential statistics, thus eliminating both the quantitative and mixed-method

approaches. My goal was to identify and explore the nature of a phenomenon, which is

most appropriate for the qualitative method.

With the qualitative method, researchers must select from a variety of qualitative

designs, including ethnography, phenomenology, and case study. When using the

ethnographic design, researchers explore the culture of a group or organization

(Hoolachan, 2016). Phenomenological scholars explore the meaning of participants' lived

experiences (Onwuegbuzie & Byers, 2014). Researchers use case studies to explore a

bounded system using multiple types of data (Yin, 2014). I did not explore cultures or the

meaning of participants' lived experiences, and thus the ethnographic and

phenomenological designs were not appropriate. I utilized the case study design because I planned to explore multiple cases of organizations addressing a single issue using different qualitative types of data.

Research Question

What organizational strategies do hospital leaders use to reduce hospital readmission rates?

Interview Questions

1. What organizational strategies do you use to reduce patient readmissions?

2. What is the role of hospital leaders in developing and implementing strategies to reduce readmission rates?

3. How do you monitor the success of your initiatives to reduce readmissions?

4. Which programs, policies, or strategies have proven most successful in reducing readmissions?

5. What are the biggest challenges and barriers you encounter as a hospital leader in implementing strategies to reduce readmissions?

6. How have you addressed the challenges to implementing the strategies to reducing readmission rates?

7. What are the issues affecting readmissions outside the control of the hospital?

8. What else you would like to add about your organizational strategies to reduce readmission rates?

Conceptual Framework

The guiding conceptual framework for this study was the concept of complex adaptive systems (CAS). Sturmberg, Martin, and Katerndahl (2014) stated scientists began exploring complex systems in the later portion of the 19th century when researching biological models to explain the physical world. Fundamental tenets of CAS include self-organization, emergence, and agents (Best, 2014). Agents interact and influence one another on a continuous basis (Chandler, Rycroft-Malone, Hawkes, & Noyes, 2016). Researchers use CAS to help understand how organizational agents interact with each other and the external environment (Best, 2014). In the business context, all businesses and organizations are CAS, which have both an operational and entrepreneurial system in constant tension with each other (Arena & Uhl-Bien, 2016). It behooves healthcare leaders to understand the application of CAS to the modern healthcare industry.

New challenges in healthcare require leaders to review and, when deemed beneficial, adopt leadership styles and processes because traditional methods cannot always provide adequate guidance in new environments (Weberg, 2012). Researchers can apply the concept of CAS to hospital readmissions because the healthcare system is a CAS and leaders, nurses, doctors, and patients are all agents interacting with one another. Leaders need to be aware of the plethora of elements, both internal and external, that can affect the success of strategies and derivative processes in reducing readmissions.

Operational Definitions

Agents: Agents are independent humans who make decisions, receive inputs from others, and send information to team members in an organization as well as personnel in other organizations with which team members interact (Kanta & Zechman, 2014).

Care continuum: The care continuum is the entire network of providers with whom patients may interact as they move through the healthcare system (Bosko & Gulotta, 2016).

Community health: Community health is the focus on treating patient population issues rather than providers treating individual patients without taking into account societal factors (Somerville, Seeff, Hale, & O'Brien, 2015)

Fee-for-service: Fee-for-service is a payment structure where the government and insurance companies reimburse healthcare providers for services they provide to patients (Nunlist, Uiterwyk, & Nicoletti, 2014).

Organizational culture: Organizational culture includes the shared standards, principles, or views of employees in an entity (Körner, Wirtz, Bengel, & Göritz, 2015).

Safety-net hospital: Safety-net hospitals are those facilities serving a disproportionate number of vulnerable patients from low socioeconomic areas (Nweze et al., 2016)

Stakeholders: Stakeholders are entities that have a vested interest in an organization such as consumers, challengers, organizational team members, and stockholders (Patel, Manley, Hair, Ferrell, & Pieper, 2016).

Value-based payment: Value-based payment, also known as pay-for-performance, is a payment structure where the government and insurance companies reimburse healthcare provides based on quality and community health improvements (Nunlist et al., 2014).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are interpretations by scholars that add information to models and concepts (Koch, Niesz, & McCarthy, 2014). Additionally, scholars and researchers need to address assumptions in relation to the holistic nature of the study (Lips-Wiersma & Mills, 2014). The first assumption of this study was that participants provided truthful information on the strategies their organizations use to reduce readmissions. This assumption was applicable because of the experience and expertise the participants have of the healthcare system and their facilities. The second assumption was the participants' goal is to reduce readmissions for their facility. By identifying assumptions in a research study, researchers provide support for the research design (Wolgemuth, Hicks, & Agosto, 2017).

Limitations

Limitations provide an opportunity for researchers to address any potential biases or restrictions that may impact the study. Limitations are possible factors the researcher cannot control (Sampson, 2017). Two main limitations existed for this study. The first limitation was the potential biases of the researcher, which included personal relationships with some participants. However, while I had both professional and

personal relationships with some participants, through bracketing, I limited potential

inconsistencies in the process. Bracketing is the process by which researchers can limit

biases and inconsistencies (Sorsa, Kiikkala, & Astedt-Kurki, 2015). The second

limitation was the implementation of the Patient Protection and Affordable Care Act

(ACA). Although hospital leaders are making progress on identifying which types of

programs reduce hospital readmissions, they may need more time to assess appropriate

implementation strategies to cope with the changes from the ACA. By identifying

limitations, researchers suggest improvements for future studies (Goswami, 2014).

Delimitations

The delimitations of the study provide the scope of the research and restrict

variables. Delimitations are factors and variables that confine the study (Bonet, 2014).

The three delimitations of this study were the participants, the geographic location, and

system-based facilities. First, participants of this study included healthcare leaders in the

executive positions for hospitals who also have a minimum of 5 years of experience in

their current or similar position. Second, the geographic area of the study included only

those hospitals residing in the southwest portion in the State of Missouri. However, the

results of the study may apply to hospitals in other states that do not have an expanded

Medicaid option through the federal government. Third, some hospital leaders were from

hospitals in the same healthcare system, but I treated each facility as its own organization.

<div align="center">Significance of the Study</div>

Hospital leaders and society could benefit from the results of this study. Hospital

leaders could use the findings of this study to identify and implement new strategies and

initiatives to reduce the readmission rates of their facilities. By implementing successful

strategies to prevent or reduce readmissions, hospital leaders can mitigate the hospital's

financial risk from excessive readmissions. Furthermore, society could benefit from the

findings of the study by improving the overall health of the population and reducing the

financial burden on the national healthcare system.

Contribution to Business Practice

Hospital leaders could benefit from the results of this study. The development and

implementation of successful programs and initiatives to reduce readmissions can

positively affect the financial health of a hospital. The federal government can penalize

hospitals up to 3% of reimbursements for excessive readmissions (Volland, 2014). While

hospital leaders cannot recoup any of the financial penalties, leaders can protect their

resources by reducing readmissions and the subsequent financial penalties. Additionally,

hospital leaders could benefit from the study by identifying industry processes that could

improve business practices.

Implications for Social Change

Improving the efficiency and quality of care could incrementally increase the

overall soundness of community-based health initiatives. Additionally, by improving

health outcomes for patients, hospital leaders can reallocate resources from treating

chronic conditions to preventing those same ailments. Preventing illnesses is a

fundamental component of hospital service to the community (Somerville et al., 2015).

By promoting improved health outcomes for local communities, society benefits through

reduction of costs to the federal government and an overall improvement in the health of communities.

A Review of the Professional and Academic Literature

Literature reviews provide the foundation of a theory for which researchers approach various scholarly issues. Ward-Smith (2016) characterized the literature review as a detailed analysis of pertinent literature of a given topic. The objective of a literature review is to systematically analyze the literature and correlate themes with new concepts and principles (Torraco, 2016). In this section, I provide a comprehensive analysis of the literature relating to CAS.

To explore the subject of CAS, I conducted queries in the Walden University Library database including ProQuest Central, Science Direct, and Sage Journals. In my search for peer-reviewed articles, I utilized key search terms including *complex adaptive systems, CAS, healthcare, hospital readmissions, complexity leadership theory, systems thinking,* and *complexity science*. Additionally, I have met the requirements of literature review for minimum sources, percentage of peer-reviewed sources, and sources published in the previous 5 years. Table 1 is a comprehensive list of the total sources for the study and the literature review.

Table 1

Sources for the Doctoral Study and the Literature Review

	Doctoral study	Literature review
Percent peer-reviewed	95%	93%
Percent in 5 years	87%	86%

The literature review contains a total of 71 sources. Of these sources, 93% are peer-reviewed and 86% are in the previous 5 years of anticipated completion of the study. Additionally, included in the entire doctoral study are 175 sources; 95% of the sources are peer-reviewed, and 87% are in the previous 5 years of anticipated completion of the study. By having current, peer-reviewed resources in the previous 5 years, I assured the literature review was current and relevant.

Complex Adaptive Systems

The guiding concept for this study was CAS, which is a theory researchers and leaders can use to help explain modern organizations (Geer-Frazier, 2014). With the advent of the knowledge era, leaders need organizational structures and theories that go beyond the mechanistic ideologies of the industrial era (Best, 2014). The current business environment is unpredictable, and traditional top-down organizational structures do not work in an unstable landscape (Geer-Frazier, 2014). CAS is a model for framing organizations as functional, adaptive entities.

Although the original concept of CAS applies to biological entities, leaders and scholars can apply the theory of CAS to the current business landscape (Zhao, 2014). Leaders and scholars can use complex systems as a framework to understand their

organizations and the environment in which they operate (Brainard & Hunter, 2016). CAS is an appropriate model on which to frame research on the modern healthcare system because of the complex nature of the industry and corresponding business problems. The main components of this section include a discussion on the fundamentals of CAS, the business paradox, development of complexity leadership theory, and application of CAS to hospital readmissions.

Systems thinking. Systems thinking and complexity science are two fundamental tenets of CAS. Shaked and Schechter (2016) stated when a person uses systems thinking as a method of framing problems to understand an issue, they must understand all parts as they relate to each other. Complexity science, like systems thinking, is a set of concepts and approaches for analyzing multifaceted systems (Gates, 2016). However, Gates (2016) argued that although systems thinking and complexity science are distinct theories, both theories could be used interchangeably when analyzing complex systems. Both theories contradict traditional ideologies on systems analysis.

Reductionism is on the opposite end of the ideological spectrum of complexity science. Reductionism is a theory of scientific inquiry scientists use to understand complex issues by reducing problems into the smallest parts (Shaked & Schechter, 2016). Reductionism is a theoretical viewpoint researchers use to organize systems into smaller components (Chen, 2016). The smaller components are easier to examine, comprehend, and describe irrespective of the complexity of a system (Chen, 2016). Reductionism is a key component to scientific research and relates to complexity science.

Despite being opposing theories, scientists use both reductionism and complexity science for research. Sturmberg et al. (2014) stated reductionism was the primary theory of scientific inquiry since the 17th century that researchers used to make discoveries in physiology and anatomical research. However, in the later part of the 19th century, scientists could no longer explain problems by simply reducing parts to the smallest segments (Sturmberg et al., 2014). Sturmberg et al. stated researchers needed to view a system as a whole to understand a given phenomenon. As such, researchers can now use complexity science to understand the scope of a system (Lanham et al., 2013). Understanding the relationship between complexity science and reductionism is the precursor to understanding CAS.

Complexity science and systems thinking have two branches of holistic thinking that can affect how leaders view their change efforts. Ogilvy (2013) stated systems thinking includes two distinct subsets, arrogant and humble systems thinking. Both concepts of systems thinking originate from the same core philosophy that all units, objects, structures, and processes in a system connect with each other. Although arrogant and humble systems thinking are opposite perspectives (Richardson, 2016), leaders and scholars cannot view one without the other because of the commonalities.

Arrogant systems thinking is the idea that all entities in a system connect with each other and that one cannot make a lasting change in the system without altering multiple aspects of the system (Ogilvy, 2013). Some systems are so complex that making a single change in a large system will not result in a permanent change because the system will adapt and revert to the previous equilibrium (Ogilvy, 2013). Leaders can

apply arrogant systems thinking to small systems where understanding the entire system is simple. However, when addressing larger systems, such as the national healthcare system, understanding how all components affect each other is more difficult (Weberg, 2012). When applying the arrogant view of systems thinking, leaders must understand that to affect change, they must understand how all facets connect with each other.

Humble systems thinking is the idea that all entities in a system connect with each other; therefore, a person cannot introduce a change and understand how it will affect the system (Ogilvy, 2013). Richardson (2016) stated leaders using humble systems thinking incorporate a large degree of uncertainty. Although humble systems thinking has the same origins as arrogant systems thinking, leaders using humble systems thinking may resign themselves to the belief that no changes can happen because they do not understand the system and, as a result, do not attempt any changes to the complex system (Ogilvy, 2013). Ogilvy (2013) argued that leaders cannot understand how individual changes may impact every facet. The leaders need to attempt to make changes to improve the system.

Healthcare is an example of how leaders can apply arrogant systems thinking to a massive structure. Healthcare has a multitude of regulations, governing entities, legislators, providers, and hospitals. Additionally, healthcare has one of the largest budgets in the United States (World Data Bank Group, 2017) and affects both local and national economies (Ottolini, Buggio, Somigliana, & Vercellini, 2016). Should leaders attempt to isolate and address a single issue in the healthcare system, the system will ultimately negate the single change by altering other areas to realign into the former

symmetry (Ogilvy, 2013). R. L. Miller (2016) stated leaders who use systems thinking avoid viewing problems from a single perspective. To create a new paradigm, leaders must address whole-system problems and implement broader changes.

The concept of agents is an important tenet of CAS. Agents are independent units who make decisions, receive inputs from other agents, and send information to other agents (Kanta & Zechman, 2014). Additionally, agents interact with and influence one another on a continuous basis (Chandler et al., 2016). They interact on a localized basis, but the cumulative impact of their interactions affects the entire system (Kanta & Zechman, 2014). Therefore, an overall organization or CAS comprises numerous sets of agents acting on a localized basis.

Examples of agents include all team members in an organization as well as personnel in other organizations with which team members interact. The perspective of organizations as CAS includes the notion that the value of organizations is not only in the agents, but also in the relationships and connections among agents (Weberg, 2012). As agents are humans in a CAS, they do have limitations. Chandler et al. (2016) stated one main drawback of agents is their knowledge and history limit them. However, because of the interactive nature of CAS, agents learn and adapt via their relationships with others (Gates, 2016).

Another important aspect of CAS is that of self-organization (Chandler et al., 2016). Self-organization is a progression of interactions among agents that creates a definable pattern (Lanham et al., 2013). Lanham et al. (2013) stated the availability of localized resources partially determine relationships among agents. The ability for agents

to access the localized resources, whether those resources are supervisors, materials, or other hardware, affects the efficiency of completing a task and the organization of the agents (Lanham et al., 2013).

The emergence and self-organization of agents depends upon certain aspects of the system in which agents operate (Geer-Frazier, 2014). Best (2014) stated the four facets of a system create the environment for emergence and self-organization when they reach a critical level of influence. These elements are the presence of multiple agents and their ability to act, the interconnectedness of agents, the interdependency of agents, and the array of populations operating in the fitness landscape (Best, 2014). These four aspects are essential to the formation of self-organizing agents in modern organizations.

Agents attempting to self-organize can encounter barriers in an organization. Patterns of self-organization are useful because agents can use them to understand how to complete tasks (Lanham et al., 2013). However, despite being a powerful organizational trait, agents do not always have opportunities for self-organization (Geer-Frazier, 2014). Organizational leaders who allow team members to self-organize could help develop implementation initiatives that highlight the differences among various units (Lanham et al., 2013). By allowing different agents and units to self-organize, leaders effectively allow each unit to determine the best way to complete a task (Lanham et al., 2013).

Business paradox. Regardless of the status of a business or organization, leaders and team members must be aware of the business paradox. Braathen (2016) argued that even though organizations are CAS and can adapt to new environments, agents may experience the business paradox. Klang, Wallnöfer, and Hacklin (2014) stated paradoxes

can occur when interconnected elements of a system are logical when considered

individually but are contradictory when analyzed together. The business paradox is the

organizational need for businesses to have both innovation and stability, which are on

opposite sides of the ideological spectrum (Geer-Fraizer, 2014). Organizational leaders

must allow team members to innovate and adapt to new landscapes (Best, 2014). This

allows team members to develop and create new products and solutions to advance the

organization. However, organizational leaders need stability to reduce uncertainty and

manage efficient operations (Geer-Frazier, 2014).

Innovation and stability have opposite tendencies on an organization, yet the

organization cannot operate without both features. Over time, leaders and team members

will develop equilibrium between innovation and stability (Geer-Frazier, 2014).

However, when a force shifts the organization out of equilibrium, two alternatives may

occur (Braathen, 2016). The first may be that team members create new connections and

ideas, thus propelling the organization further out of equilibrium and toward innovation.

If the internal stabilizing forces of the organization are stronger than the destabilizing

forces, then the organization will shift back to homeostasis (Braathen, 2016). If the

stabilizing forces move the organization back to the original equilibrium, the

organizational agents will engrain the organization in the status quo (Braathen, 2016).

These self-fulfilling cycles may ultimately limit an organization from any type of

innovation and could result in failure of the company (Braathen, 2016).

Organizational team members experiencing change may also endure the ensuing

paradoxical nature of change. Geer-Frazier (2014) stated the organizational paradox is a

by-product of change. The paradox creates tensions in organizational team members that may be either positive or negative. When reacting to changes in an organization, team members may have a proactive response that will further promote their ability to think and develop complex ideologies (Klang et al., 2014). Alternatively, agents may react defensively and resist change, which creates a barrier to entertaining different manners of thinking (Klang et al., 2014). These reactions by organizational team members constitute positive and negative feedback loops, another component of CAS.

Another facet of CAS and the business paradox is that of feedback loops. CAS have both positive and negative feedback loops that have opposite influences on moving an organization towards chaos or stability (Weberg, 2012). For CAS, positive feedback loops help leaders promote innovation and move the organization towards the edge of chaos as they disrupt routine processes and ideals (Weberg, 2012). Best (2014) stated systems operating on the edge of chaos can produce genuine and novel ideas and solutions. Conversely, negative feedback loops provide a mechanism for organizational team members to strengthen routines and thought processes that suppress ingenuity (Best, 2014). Agents in a CAS are the mechanism by which positive and negative feedback loops affect an organization (Uhl-Bien, Marion, & McKelvey, 2007). Organizational leaders need to balance the influence of both types of feedback to create an operational equilibrium.

Leaders in the healthcare industry, particularly hospital leaders, are experiencing the business paradox in the current landscape. Leaders must effectively operate their core business while simultaneously innovating and reinventing their business model (Reeves,

Levin, & Ueda, 2016). Ricciardi, Zardini, and Rossignoli (2016) argued leaders who

manage through organizational paradoxes leverage elements that would not have been

available without the paradoxical tensions. Pivoting an organization from one business

model to the next iteration requires a leader who understands the complexities of both the

organization and the environment (Ricciardi et al., 2016). To function in the current

knowledge era, leaders need to recognize organizations as CAS and understand

complexity leadership theory.

   Complexity leadership theory. Leaders must understand the role of complexity

in the modern business environment. McDonald (2014) stated leadership style affects the

culture of an organization, which in turn influences overall performance. Leaders who

employ complexity leadership understand that organizations are CAS and that traditional

command-and-control functions are inadequate to survive in the current fitness landscape

(Best, 2014). The problems leaders encounter in today's knowledge era are different than

the problems of the industrial period (Davis, 2015). Complexity leadership theory is a

philosophy that coincides with the CAS model and is valuable to modern organizational

leaders.

   Unlike traditional leadership theories, such as transactional, transformational, and

great-man theories, researchers of complexity leadership theory advocate for a different

organizational design. One fundamental aspect of complexity leadership, like CAS, is the

notion of self-organization and emergence (Uhl-Bien et al., 2007). To support self-

organization and emergence, leaders who practice complexity leadership allow for a

bottom-up design rather than of a top-down design (Best, 2014). In the context of CAS

and complexity leadership, leaders transition from a role of dictating, preparing, and controlling to a role of assisting the flow of information, creating organizational connections, and supporting their team members (Weberg, 2012). These leaders create an environment in which team members can create and develop their own solutions and initiatives.

Organizations have both formal and informal leaders. Complexity leadership acknowledges a difference between leadership and leaders. Best (2014) stated leadership occurs when team members from different functional domains in an organization create new dynamics for others regardless of their organizational silo or domain. Subsequently, Best stated that according to complexity leadership theory, leaders are any team members who create connections among others and enhance outcomes. Geer-Frazier (2014) agreed with Best's view of complexity leadership and stated the role of leaders is to enable team members as opposed to controlling them. Complexity leadership theory supports the notion that organizations have both formal and informal leaders and that any team member exhibiting leadership qualities is a leader.

When formal leaders recognize the role and importance of informal leaders, the organization benefits. Lichtenstein et al. (2006) stated complexity leadership theory supports the notion that all team members can be a leader, which transitions responsibility to other organizational levels, creating shared leadership. Additionally, Geer-Frazier (2014) stated leaders can use complexity leadership to create shared controls and leadership at all organizational levels. When lower organizational levels have accountability and responsibility for creating innovation and managing operations,

the formal leaders then focus on strategic opportunities rather than daily operations (Lichtenstein et al., 2006). By sharing leadership responsibility, leaders allow team members to self-organize and renew the organization while the formal leadership attends to developing and identifying organizational strategies.

Researchers of complexity leadership theory, like CAS, present a version of the business paradox. Leaders who understand complexity leadership recognize the existence of two holistic functional mechanisms of an organization: the operational system and the entrepreneurial system (Arena & Uhl-Bien, 2016). The operational system provides managerial efficiency and administrative functions that create stability; the entrepreneurial system supports creativity and ingenuity (Arena & Uhl-Bien, 2016). Using a third aspect of complexity leadership theory, leaders need to enable team members to create new interfaces between the administrative and adaptive units (Mendes, Gomes, Marques-Quinteiro, Lind, & Curral, 2016). Like the business paradox, leaders who practice complexity leadership understand that organizations need both systems to sustain long-term viability (Best, 2014; Geer-Frazier, 2014). The role of the leader is to allow team members to create new initiatives between the two systems.

Leaders in healthcare organizations need to adopt complexity leadership theory to be sustainable in the current fitness landscape. Complexity leadership theory is an appropriate model for healthcare leaders because it provides a framework with which leaders can address increasing costs, low quality, and gaps in new industry practices (Weberg, 2012). Additionally, Chandler et al. (2016) stated leaders could use complexity theory to help them understand the multifaceted nature of healthcare in relation to both

macro structures and micro level interactions. The healthcare industry is currently undergoing numerous changes (Weberg, 2012), and hospital leaders must maintain current business models and practices while simultaneously creating new solutions to meet future demands. Successful leaders in healthcare must understand the complexity of the system and allow their team members to self-organize to create sustainable initiatives.

Organizational culture is a core component to the successful use of complexity leadership theory. Körner et al. (2015) defined the culture of an organization as the common standards, principles, or views shared by team members in an organization. Although organizational culture is not an organic being, organizational cultures shift and change over time with team members and the external environment (Whelan, 2016). Consequently, leaders must understand how their current organizational culture affects team members and whether the culture promotes or inhibits team members' ability to change and innovate. Weberg (2012) stated complexity leadership is about shifting the culture of a healthcare organization to produce positive healthcare outcomes. Healthcare leaders need to understand complexity leadership theory and CAS to meet the modern demands of a rapidly changing and extremely diverse business and social environment.

Alternative Theory

Much like CAS, reductionism is a theory that researchers and leaders use to study various problems and issues. Sturmberg et al. (2014) stated the reductionist model was the primary scientific theory of the 17th century, and scientists used the framework to make instrumental medical and scientific discoveries. Weberg (2012) stated researchers and scholars primarily used reductionism to understand scientific and physiological

systems. The core concept of reductionism is to reduce components, either biological or otherwise, into their smallest measurable units to understand how they operate (Ngana, 2015; Weberg, 2012). However, scholars and scientists cannot use reductionism as a method on which to observe the interactions among multiple units, which means this theory has limitations for researchers attempting to understand a system (Chen, 2016). Researchers and leaders use both CAS and reductionism to understand barriers and problems in all fields, not just scientific queries.

Leaders and organizational team members can still use reductionism in the business realm despite its development in the traditional sciences. In the business environment, reductionism is the viewpoint that a whole is merely the sum of each individual part with no gains or synergies from cross-divisional units (Ponte, Costas, Puche, de la Fuente, & Pino, 2016). Chen (2016) stated CAS, or holism, is the opposite viewpoint of reductionism, and the main tenet of it is that organizations are the product of the relationships and collaboration among agents. Reductionism is still in use in current business models and is present where organizational divisions compete against each other on performance measures (Ponte et al., 2016). When individual agents attempt to secure business partners or incentives at the expense of their counterparts, or other inter-organizational teams, the result can be inefficiencies in the system (Ponte et al., 2016). Leaders therefore need to understand the benefits and weaknesses of reductionism and holism.

Both reductionism and holism have benefits and limitations. The benefits of reductionism include a scientifically viable strategy for analyzing problems including

scientific recognition and rigor in evaluation (Chen, 2016). However, the limitations of reductionism include the omission of the interests of external stakeholders, lack of ability to develop effective processes in the current business environment, and the exclusion of interactions among agents (Chen, 2016). The benefits of holism, or CAS, are that researchers can use it to understand a more comprehensive view of a given system, provide synergies and emergence, and promote collaboration and creativity (Barasa, Molyneux, English, & Cleary, 2017). However, the drawbacks include potential data overload and complications in reporting and communication (Chen, 2016). By understanding the strengths and weaknesses of both theories, leaders can implement appropriate strategies to negate adverse business problems.

Leaders encounter a myriad of business problems, which is byproduct of the development of global organizations and the transition to the knowledge era (Best, 2014). Nijs (2015) described problems as either complicated or complex. Complicated problems have numerous interrelated steps but follow a set trajectory toward completion (Nijs, 2015). For example, although developing and manufacturing a modern airliner is an arduous process with numerous steps and agents, it is complicated but not complex. Leaders and scholars have a challenging time defining complex issues because of their ambiguous nature, and because they often involve the consideration of numerous entities and stakeholders (Nijs, 2015). An example of a complex issue is the relocation of a government agency in an urban, metropolitan area that affects the economic viability of a region with multiple stakeholders. Leaders must understand how reductionism and holism relate to complicated and complex problems.

When addressing complicated and complex issues, leaders may elect to use different theories. Reductionism is an appropriate application for complicated problems because it is a framework leaders can use to dissect seemingly difficult tasks into a simpler form (Wood & Caldas, 2001). However, reductionism may not work when attempting to solve problems that involve numerous stakeholders (Chen, 2016). Complex problems are more likely to develop when addressing a connected society, as business leaders do today (Nijs, 2015). When attempting to analyze complex issues, leaders need to apply holism to understand how various stakeholders relate to the larger problem (Wood & Caldas, 2001). Additionally, to be sustainable, organizational leaders need to transition from applying reductionism to complex problems to a holistic approach (Ngana, 2015). The organizational and societal issues of hospital readmissions are complex problems that require the application of holism.

Modern leaders may not use the inadequate guidance of reductionism when they consider the complex issue of hospital readmissions. Despite the use of reductionism in the current business environment (Chen, 2016; Ponte et al., 2016), holism is an approach to modern problems (Wood & Caldas, 2001). As such, hospital leaders need to apply holism, or the theory of CAS to reduce hospital readmissions.

The theory of CAS is a fundamental theory for hospital leaders as the industry undergoes a paradigm shift representative of the transition away from the industrial era and towards the knowledge era. Legislators and governing entities are transitioning the industry away from the traditional fee-for-service payment model to a value-based payment structure (Volland, 2014). Through the new value-based payment structure, the

Centers for Medicare and Medicaid Services (CMS) can provide higher reimbursement to

a hospital for improving the overall health of the population it serves (Jha, 2017).

Reducing readmissions is one area of the payment structure transition to where hospital

leaders can limit their financial exposure by improving population health (McCarthy,

Johnson, & Audet, 2013). Leaders using reductionism may not develop appropriate

strategies or programs for reducing readmissions, or any other community health issue,

because leaders must understand how the varying facets, stakeholders, and complexities

relate to each other in the context of a holistic approach.

Hospital Readmissions

Reducing hospital readmissions is a critical objective for hospital leaders because

readmissions affect both the financial viability of the hospital and the community in

which the hospital resides (McCarthy et al., 2013). McCarthy et al. (2013) stated

although hospital readmissions have recently become a priority for CMS, it is not a new

problem. Unscheduled readmissions are a common problem for healthcare organizations

(Ghamdi, Alshammari, & Razzak, 2016). Hospital team members readmit approximately

20% of patients with Medicare as their primary payer in 30 days of initial discharge and

34% of patients in 90 days (Snyderman, Salzman, Mills, Hersh, & Parks, 2014). In this

section, I provide the background of the issue of hospital readmissions, apply the concept

of CAS to hospital readmissions, and discuss possible insights from the participants of

the study.

Background on hospital readmissions. Numerous changes to the healthcare

industry are a result of new legislation from Congress. Hospital leaders are still

attempting to adapt to all changes from the ACA (Jha, 2015). One of the most notable

and influential changes to the healthcare environment is the implementation of the

Hospital Readmission Reduction Program (HRRP) (Haley, Zhao, & Spaulding, 2016).

Through the HRRP, CMS can reduce payments to hospitals for excess patient

readmissions (McWilliams et al., 2016). By creating a financial penalty for hospitals with

excess readmissions, hospital leaders have an incentive to reduce readmissions and help

improve health outcomes for the communities they serve (Ahmad et al., 2013).

The implementation of the HRRP is one of three policies that represent a

fundamental transition in the payment structure from the federal government to hospitals

(Jha, 2015). The other quality programs include reductions for excessive hospital-

acquired conditions and the Value-Based Purchasing program (Jha, 2017; Volland,

2014). For the HRRP, hospitals performing worse than the national average receive a

payment reduction through the federal government commensurate with the excess

readmission rate (Winborn et al., 2014). Reducing hospital readmissions is a critical

driver for the financial sustainability of hospitals; CMS can reduce hospital payments up

to 3% for to facilities with excess readmissions (Jha, 2015). Through these quality

programs, CMS links the quality of care patients receive during a stay to the financial

reimbursement hospitals receive through the federal government (Boozary, Manchin, &

Wicker, 2015). Therefore, hospital leaders have an incentive to improve the value of the

services they provide because of the pay-for-performance model (Weberg, 2012).

Excess costs in healthcare, for any reason, cause a financial strain on both the

federal government and hospitals. Cox, Sadiraj, Schnier, and Sweeney (2016) stated that

in 2009 unnecessary healthcare costs totaled about $765 billon. Potential avoidable

readmissions cost Medicare approximately $17 billion (Boozary et al., 2015). Under the

current payment structure, the fee-for-service model, providers have an incentive to over-

treat their patients because their payments are from services they provide, not on the

quality or appropriateness of services (Cox et al., 2016). The fee-for-service model does

not include adjustments for medical necessity or tie any quality measures or patient

satisfaction elements to a provider's reimbursement (Cox et al., 2016). The federal

government is attempting to recoup some of these costs using quality programs such as

the HRRP (Volland, 2014).

The HRRP is one mechanism the federal government is using to change the fee-

for-service payment structure to include quality measures (Cox et al., 2016). The new

programs that include the quality penalties represent a transition from the traditional fee-

for-service model to a pay-for-performance model (Cox et al., 2016; Jha, 2017). Hospital

leaders and clinicians need to find innovative ways to treat their patients that either

reduce costs, increase quality, or both (Snyderman et al., 2014). The implementation of

the pay-for-performance payment structure is indicative of a paradigm shift in the

industry (Volland, 2014).

Leaders of healthcare organizations and organizational stakeholders, whether they

are hospital leaders, clinicians, patients, insurance agents, or governmental officials, are

all experiencing the effects of an industry undergoing a paradigm shift. The industry is

transitioning away from the traditional fee-based payment structure to a model that

reimburses healthcare providers on how they perform in relation to quality and health

outcomes measures (Volland, 2014; Weberg, 2012). Additionally, healthcare providers are facing an increase in market pressures as patients are beginning to act less like traditional patients and more like general consumers (Latney, 2016). Both the transition in payment structure and increase in consumerism contribute to the shifting landscape to which hospital leaders must adapt. Another aspect of the paradigm shift includes the new pressures hospital leaders and clinicians encounter from patient-consumers, the federal government, and community stakeholders.

Although the change in payment structure, increase in consumerism, and new hospital initiatives are distinct constructs of the paradigm shift in healthcare, each facet has aspects that affect other elements. Hospital leaders need to pivot their current business models to accommodate a new landscape because of the changes brought about by the payment shift and new patient behaviors (Haley et al., 2016; Volland, 2014). Hospital leaders need to recognize the environmental and societal factors affecting health outcomes in the new landscape (DeAngulo & Losada, 2015). With the new paradigm, clinicians' care of a patient will not end at discharge; rather, clinicians will be responsible for the treatment of the patient across the continuum of care into the postacute domain (Jha, 2015).

In addition to the transitioning reimbursement structure for hospitals, CMS, through the HRRP, creates accountability for hospital leaders and clinicians to care for patients after their initial hospital discharge (Jha, 2015). Although the HRRP has many critics and weaknesses, advocates of the program argue for the benefits of the HRRP, which is that hospitals are now accountable for the care of a patient after discharge (Jha,

2015). Having hospitals leaders and clinicians be accountable for patients after discharge promotes communication and integration with healthcare providers across the continuum of care (Snyderman et al., 2014). Communication from hospital team members to postacute providers is a common reason for hospital readmissions; improving communication among stakeholders increases the quality of care hospital team members provide to patients (Haley et al., 2016; Snyderman et al., 2014). While increasing the accountability of hospital leaders, clinicians, and team members for the care of patients after discharge is a benefit of the HRRP, the program has many shortcomings.

One weakness of the HRRP is the disproportionately high financial penalties that safety-net hospitals incur. Safety-net hospitals are 30% more likely to have a readmission than the national average (Gu et al., 2014). Safety-net hospitals also serve populations that often have low socioeconomic statistics and have more medically complicated patients (Gu et al., 2014). Patients who live in sicker, poorer, and less-educated areas with few social support systems are inherently more likely to be readmitted (Jha, 2015; Nagasako, Reidhead, Waterman, & Dunagan, 2014). Safety-net hospitals also have lower profit margins than non-safety-net hospitals and cannot afford the penalties of the HRRP (Boozary et al., 2015; Gu et al., 2014). Reducing reimbursement to hospitals for the populations clinicians serve does not aid the facilities in providing higher-quality care for their patients.

The HRRP is effectively penalizing hospitals for factors outside of the hospitals' control control (Gu et al., 2014). Many population factors affect the likelihood of a readmission such as patients are living longer lives with more complicated medical issues

(Ahmad et al., 2013). The current life expectancy for a male and female in the United States reaching age 65 is 84.3 and 86.6, respectively (Social Security Administration, 2017). Clinicians are treating patients inherently more likely to require hospitalization (Ahmad et al., 2013), which is a by-product of higher life expectancy. Additionally, hospitals receive a financial penalty for patient readmissions even if the rehospitalization is a result of patient noncompliance (Toh et al., 2014). Medically complicated, aging populations and noncompliant patients are two population factors the CMS model does not account for despite these factors are out of the control of hospital leaders and clinicians.

Penalizing hospitals that serve vulnerable populations is another drawback of the HRRP. Jha (2015) argued that using readmissions as a gauge of quality for safety-net hospitals is not appropriate because it is an indicator utilization rather than quality. Patients from areas of low socioeconomic status are more likely to use hospitals for healthcare than patients from areas of high socioeconomic status because they have less access to primary care (Gu et al., 2014). However, the HRRP does increase accountability and responsibility on healthcare providers for care coordination for patients who live in vulnerable populations (Boozary et al., 2015). However, making improvements to the risk-adjustment methodology to account for patients' socioeconomic status may more appropriately reflect the quality hospitals provide.

By accounting for patients' socioeconomic status, CMS, through the HRRP, can more appropriately assess hospitals' performance in controlling readmissions, particularly in low-socioeconomic-status areas where patients are at high risk for

readmission (Gu et al., 2014). Nagasako et al. (2014) demonstrated that including social factors in the risk-adjustment model improves the efficacy of the instrument. Boozary et al. (2015) stated stakeholders in healthcare agree that CMS should account for social factors when assessing readmissions penalties. Despite the exclusion of social determinants on readmissions, hospital leaders must address the growing issue of hospital readmissions.

Application of CAS to hospital readmissions. The theory of CAS has many applications to the current healthcare environment. Modern healthcare organizations, hospitals or otherwise, are CAS (Barasa et al., 2017). Moreover, hospital leaders attempting to address the national issue of hospital readmissions need to understand how varying organizations and stakeholders interact with each other (Ahmad et al., 2013). By understanding hospitals as CAS, hospital leaders can create a culture in which organizational team members self-organize and create unique solutions to solve modern issues (Chandler et al., 2016; Lanham et al., 2013).

The healthcare industry is an example of modern organizations transitioning from the industrial era to the knowledge era (Hamilton, Coldwell-Neilson, & Graig, 2014). Cabrilo, Grubic Nesic, and Mitrovic (2014) stated that although physical assets were sought after in the industrial era, in the modern era leaders should seek out knowledge as a valuable resource for innovation and the development of genuine solutions to new problems. The transition to the knowledge age is indicative of the fact that modern organizations are CAS (Best, 2014). Moreover, the issue of hospital readmissions is a

problem of the knowledge era, and hospital leaders cannot create unique solutions to help their patients by adhering to the traditional paradigm of the industrial era.

The issue of hospital readmissions is comparable to complex problems. Nijs (2015) stated complex problems often do not have one answer or solution, and that simply replicating a solution in one context will not necessarily produce the same outcome in a different environment. The societal issue of hospital readmissions is a complex problem involving a multitude of stakeholders outside of the direct control of hospital leaders (Gu et al., 2014; Nagasako et al., 2014). Another factor is that hospital clinicians treat medically complicated patients, which compounds the complex issue of hospital readmissions.

Although some physicians describe patients as medically complex, in this context patients are medically complicated (Nijs, 2015). Despite this difference in terminology, medically complicated patients create an additional variable for an already complex issue (Ahmad et al., 2013). To establish meaningful initiatives to reduce readmissions, hospital leaders need to take a holistic approach and understand the context of their patient population.

Even though hospitals may be geographically close to one another, team members may serve different patient populations with diverse needs and may provide different services as a result. May, Johnson, and Finch (2016) stated the context of an issue creates genuine problems not seen elsewhere. Additionally, May et al. argued that genuine complications created by unique contexts cause issues for implementing new processes. Hospital leaders and clinicians need to comprehend the full context of the issues their

patients encounter beyond the physical bounds of the hospital (Snyderman et al., 2014). If hospital leaders are to create new solutions to reduce hospital readmissions, then they may need to implement a variety of initiatives, which correspond to the contextual problems their patients encounter beyond their physical wellbeing.

Organizational culture is a fundamental feature of any business, including hospitals. Although researchers cannot agree on a universal definition for organizational culture (Willis et al., 2016), Körner et al. (2015) stated that organizational culture is the commonly held standards, principles, and perceptions of team members in an organization. As a managerial tool, the culture of an organization is a core component and leaders can use it to create structures and networks (Whelan, 2016). Additionally, the culture of an organization has a reciprocal relationship with the agents, or team members, of the company. The culture influences each team member just as each team member, leader or otherwise, influences the culture. Consequently, business leaders need to understand their organizational culture if they are to implement successful strategies to reduce hospital readmissions.

For the organizational culture to support hospital leaders' readmission reduction initiatives, the leaders must align the culture with the strategic vision. Poore (2015) stated to have long lasting change in a healthcare setting, leaders need to change the culture to align with the overall strategy of the organization. Leaders can align strategic objectives and the culture by setting performance targets congruent with the strategic plan and by allocating appropriate resources to support organizational goals (Willis et al., 2016). However, cultural changes many take extended periods of time to implement (Whelan,

2016), which may dissuade leaders from pursuing long-term initiatives. However, hospital leaders cannot improve the societal issue of hospital readmissions without a holistic, systems-based approach to the problem. The holistic organizational approach to reducing hospital readmissions includes pivoting the organizational culture.

Hospital leaders can use many elements of CAS to create an organizational culture that supports their readmission reduction initiatives, including a bottom-up approach to solution development. Tonges, Ray, Overman, and Willis (2016) stated that one of the best sources of ideas for solving a problem can emerge from the front-line employees who work closest to the issue. Effectively, leaders need to create an environment for team members to self-organize and develop unique solutions to new issues. Although hospital readmissions are not a new problem (McCarthy et al., 2013), leaders need to identify new solutions to resolve the issue. The bottom-up approach to leadership and solution development is a major theme of viewing organizations as CAS that is applicable to reducing hospital readmissions.

The culture of a hospital has important implications for leaders, clinicians, team members, and patients. Allen, Braithwaite, Sandall, and Waring (2016) stated that organizational culture has a significant effect on both the safety of team members and the quality of care clinicians provide to patients. If hospital leaders are to focus efforts on improving patient outcomes and embrace the shifting payment structure, improving the organizational culture may decrease injuries while reducing readmission rates thus mitigating the financial effects of hospital readmissions.

The recognition of the value of organizational culture is a product of the knowledge era. Adapting the organizational culture towards integration and alignment of strategic vison will help produce unique solutions to a traditional problem (Poore, 2015). Hospital leaders need to take a holistic approach to solving modern healthcare issues and apply complexity leadership (Leykum et al., 2014). Even though the issue of hospital readmissions is a problem from the industrial era, the solution will need to come from the knowledge era. Leaders who understand how to operate in the knowledge era and can instill an organizational culture that promotes accountability for patients beyond the physical bounds of the hospital will position themselves for success.

By implementing complexity leadership, hospital leaders can begin to identify and analyze all the factors, medical or otherwise, that may influence a patient's likelihood of readmission. Leaders can use complexity leadership theory to recognize the vast amount of societal issues and stakeholders that can influence healthcare operations (Chandler et al., 2016). Arena and Uhl-Bien (2016) stated complexity leadership theory addresses the issue of organizational leaders' ability to allow team members to self-organize and produce novel solutions to succeed in a complex landscape. Although the theory of complexity leadership is compatible with a modern framework for hospital leaders attempting to reduce readmissions, another possible leadership theory is transformation leadership theory.

Transformational leadership theory and complexity leadership theory have similar facets. Transformational leaders attempt to empower organizational team members and move them beyond their localized sphere of influence (Wang, Demerouti, & Le Blanc,

2017). However, even though leaders who utilize both theories endeavor to enable their team members to go beyond their comfort levels and develop new solutions (Choi, Goh, Adam, & Tan, 2016), transformational leaders need to address the issue of complexity. Transformational leadership, though applicable to hospital readmissions, is not an appropriate framework on which to understand the complex landscape in which hospital leaders operate. Leaders using complexity leadership theory rely on a similar model to that of transformational leadership theory with the addition of the complex environment of the knowledge era.

Strategies to reduce readmissions. Many factors, both internal and external to hospitals, affect hospital readmissions. Likewise, hospital leaders utilize a variety of organizational strategies to reduce patient readmissions (Ahmad et al., 2013). However, hospital leaders serve different populations in a variety of settings, and strategies for one facility may not be appropriate for another (Gu et al., 2014). Likewise, hospital leaders in states that have an expanded Medicaid insurance program may have strategies for controlling readmissions that leaders in non-Medicaid expansion states do not. The potential themes of this section are from the professional and academic literature available on the subject and may overlap with the themes from this qualitative research study.

Hospital leaders and team members are beginning to implement strategies to account for patients' well-being across the continuum of care. The continuum of care includes clinicians of all settings whom patients may encounter while receiving care. However, patients are particularly vulnerable during care transition periods (Snyderman

et al., 2014), and physicians, hospital clinicians, postacute providers, and patients struggle with coordinating care and communication (McClintock, Mose, & Smith, 2014). One strategy hospital leaders may use to promote the flow of information during care-transition periods is to schedule follow-up appointments prior to discharging patients as a way of augmenting the discharge-planning process (Snyderman et al., 2014). However, hospital leaders may identify multiple strategies promoting the flow of information to and from hospitals, primary care physicians, and patients throughout the care continuum.

One organizational strategy hospital leaders may adopt is to invest in their nursing staff. Many organizational strategies for reducing readmissions rely on the nursing staff to coordinate the transition of care for the patient (McHugh, Berez, & Small, 2013). Yet even if hospital leaders implement new initiatives, front-line team members must have adequate staffing to execute all processes. McHugh et al. (2013) revealed that hospitals with larger nursing staffs had a 25% lower chance for patient readmissions compared to hospitals with smaller nursing staffs. Having appropriate nurse staffing levels helps support the implementation of other strategies to reduce readmissions. Even though it is one of the most basic approaches to business, having an adequate number of skilled professionals will help improve organizational outcomes.

Another possible strategy that hospital leaders and clinicians may pursue is to increase the use of the outpatient observation unit. Zuckerman, Sheingold, Orav, Ruhter, and Epstein (2016) conducted a study to ascertain whether clinicians were using their observation units more after the implementation of the HRRP. Zuckerman et al. (2016) discovered no significant correlation between readmission rates and the change in the use

of the observation unit. In effect, while leaders may identify an increase in observation use as a strategy, this approach may not be effective in reducing readmissions.

Leveraging hospitals' electronic health records can help clinicians predict the likelihood of readmission and provide physicians with vital information about patients. Predicting readmissions is an arduous task, but if clinicians are aware that a patient is at risk for readmission, they can tailor appropriate services for the patient (Ghamdi et al., 2016). Additionally, hospital leaders and team members struggle to extract and relay information from their electronic health records to clinicians who work outside of the hospital (Ahmad et al., 2013). To improve upon this issue, hospital leaders can develop processes and techniques for extracting information out of the electronic system and use that data to support evidence-based practices. In the knowledge era, leaders need to learn how to work with complex information systems to support their daily strategic operations and objectives.

Methodological Considerations

The sources in this literature review are a mixture of qualitative and quantitative research studies. A researcher can use different methodologies for exploratory and explanatory studies (Yin, 2014). In this study, I aim to explore organizational strategies hospital leaders use to reduce readmissions. Through this study, I complemented previous studies on the subject. The subject of hospital readmissions is a broad, complex topic, and many authors discuss the various aspects of the phenomenon. Topics of previous articles include the effect of a patient's socioeconomic status on readmissions, shortcomings of the HRRP, and potential readmission reduction strategies hospitals leaders may pursue.

In this section, I compare and contrast a variety of viewpoints to demonstrate how I relate this study to previous findings.

One major theme of hospital readmissions is the emphasis on patient factors outside the control of hospital team members. Hospitals that serve dual-eligible patients, patients who can receive financial support from both Medicare and Medicaid, are more likely to have higher readmission rates because these patients are more vulnerable than non-dual-eligible patients (Gu et al., 2014). Nagasako et al. (2014) conducted a quantitative analysis and revealed that adding socioeconomic status as a controlling factor in the risk-adjustment methodology reduced the range of variation in the readmission rates. By including patient's census tract as a controlling factor, Nagasako et al. increased the efficacy of the risk-adjustment methodology.

Critics of the HRRP argue that hospital clinicians may attempt to reclassify patients as outpatient observations instead of inpatient status to reduce readmissions (Whitman, 2016). Zuckerman et al. (2016) conducted a quantitative study to determine whether an increase in a hospital's observation stays correlated to a decrease in readmissions. Though Zuckerman et al. demonstrated an increase outpatient observation stays and a decrease in hospital readmissions, Zuckerman et al. did not find a significant correlation between observation unit utilization and readmission rates. Zuckerman et al. provided evidence of an organizational strategy to decrease readmissions that did not materially produce the intended results. The findings of this study are useful to hospital leaders because understanding what not to attempt is just as important as identifying strategies that produce successful results.

Another quantitative analysis from the literature review is a study on how nurse staffing levels affect readmission rates. Hockenberry and Becker (2016) stated frontline hospital team members have a material impact on performance across hospital domains. McHugh et al. (2013) discovered hospitals with higher nurse staffing levels were less likely to be penalized in the HRRP than hospitals with lower nurse staffing levels. McHugh et al. conducted their study using administrative claims data and attempted to make comparisons between pairs of hospitals based on size and other factors. Investing in more nurses to perform the necessary functions in hospitals may help mitigate the adverse effects of the HRRP and improve performance in other quality measures.

Another aspect of having excessive readmission penalties is the societal perception of hospitals and quality. Winborn et al. (2014) researched the effect of having a readmission penalty, resulting in a perception of low quality, on hospitals' reputations. Winborn et al. researched newspaper articles concerning hospitals, readmission rates and penalties, as well as the themes of the articles. By using logistic-regression models, Winborn et al. revealed the effect on a hospital's reputation was larger for hospitals that received a high readmissions penalty, and the corresponding perception of providing low-quality care, than for hospitals with a low readmissions penalty, which was perceived as providing high-quality care. Additionally, Winborn et al. identified themes from previous articles in which the authors discussed the negative effect of serving an at-risk population (Gu et al., 2014) and the lack of patient-population statistics in the risk-adjustment methodology (Nagasako et al., 2014).

Researchers conducting qualitative studies of hospitals in relation to readmissions explore holistic aspects whereas researchers using the quantitative method aim to explain a specific strategy or aspect. Ahmad et al. (2013) piloted a qualitative analysis of hospital leaders to ascertain what potential strategies they might use to reduce hospital readmissions. Ahmad et al. used a multiple case study design and conducted interviews with a variety of hospital leaders. Through the interviews, Ahmad et al. reported that many hospital leaders identified themes like those discovered by the authors of the quantitative studies. Ahmad et al. stated that hospitals leaders reported that some factors influencing readmissions are outside of the hospital's control, such as poverty rates and mental health issues, which coincides with the study by Nagasako et al. (2014) on adding social and population factors to the risk-adjustment methodology. Additionally, Ahmad et al. stated that hospital leaders identified poor communication among healthcare providers as a source for patient readmissions, which Snyderman et al. (2014) cited as a potential area for improvement.

Although Ahmad et al. (2013) cited many possible strategies that hospital leaders may use to reduce readmissions, the study has some limitations and differences as compared to my proposed study. Ahmad et al. used a purposeful selection of hospital leaders in the Philadelphia metropolitan area based on hospital performance of readmissions. The main differences between this study and my proposed study are twofold. First, my purposeful selection was not in a major metropolitan area, and Pennsylvania was a Medicaid-expansion state through the ACA, whereas Missouri was not. Secondly, Ahmad et al. conducted the study shortly after the enactment of HRRP;

hospital leaders may not have understood what strategies were to be successful. After four years of attempting to reduce readmissions, hospital leaders are more likely to understand which strategies are successful and which are not.

This study relates to previous studies because I provided further research and knowledge on organizational strategies to reduce readmissions. Like other qualitative studies, I conducted a qualitative case study with hospital leaders that expanded on the research by Ahmad et al. (2013). By analyzing effective strategies that hospital leaders in a non-Medicaid-expansion state use to reduce readmissions, through this study I may aid other hospitals and scholars in identifying initiatives to reduce readmissions in a similar situation.

Transition

The qualitative multiple case study design is an appropriate approach for researching organizational strategies hospital leaders use reduce hospital readmissions. In this section, I summarized the background of the problem, present the specific business problem and purpose statement, and introduce the nature of the study and conceptual framework. Additionally, I defined the research question, operational definitions, assumptions, limitations, and the delimitations of the study. The review of the academic and professional literature is a synthesis of the recent information on CAS and hospital readmissions. In section 2, I present the research project and provide support for the methodology. Additionally, I describe the role of the researcher, participant selection, and ethical considerations. In section 3, I present the results of the study and provide an analysis of the themes from the semistructured interviews.

Section 2: The Project

Reducing hospital readmissions is an organizational imperative for hospital leaders because readmissions affect both the financial viability of the hospital and the community in which the hospital resides (McCarthy et al., 2013). In this section, I provide support for the study including justification for the role of the researcher, inclusion of participants, the research method and design, and population and sampling. Additionally, I introduce considerations for ethical research, data collection instruments, data organization technique, data analysis, and reliability and validity.

Purpose Statement

The purpose of this qualitative multiple case study was to explore organizational strategies hospital leaders use to reduce readmission rates. The population included eight C-suite and seven manager level team members from six hospitals located in Southwest Missouri who have identified and implemented organizational strategies that reduce readmission rates. The potential for positive social change from the findings of this study could include a decrease in the financial burden on the national healthcare system, improved patient outcomes, and an increase in community-based health initiatives.

Role of the Researcher

When conducting qualitative studies, researchers must be aware of their role in the project. In qualitative analysis, the researcher is the instrument of the study (Anderson, Guerreiro, & Smith, 2016; Collins & Cooper, 2014), which differs from quantitative analysis in which researchers utilize written measures to evaluate specific constructs. Additionally, researchers must be cognizant of their relationships with the

topic, participants, or research area (Collins & Cooper, 2014). Olin, Karlberg-Granlund, and Furu (2016) stated researchers' knowledge of a subject area could help them hone the focus of a specific issue. I was familiar with some of the participants of the study and worked for an organization that provided hospitals information on readmission rates. By recognizing my relationship with both participants and my work organization, I was able to mitigate biases and personal viewpoints.

Researchers must be aware of the ethical considerations when conducting research on any subjects (Collins & Cooper, 2014). Hamzaee and Baber (2014) described ethics as a set of intrinsic values that address the fundamental questions of right and wrong. Researchers can use the Belmont Report to understand basic ethical considerations and guidelines for researchers (U.S. Department of Health and Human Services, 2016). In the Belmont Report, the authors describe several considerations to which researchers must adhere when conducting research on human subjects. The Belmont Report identifies three basic ethical principles for research including respect for individuals, beneficence, and justice (U.S. Department of Health and Human Services, 2016). Additionally, the report sets forth documentation concerning informed consent, assessment of risk and benefits, and the selection of subjects. I adhered to the Belmont report during the study as I requested informed consent of all participants, and the participants were at minimal risk.

As qualitative researchers are the instruments in the study, they must be aware of their biases during the entire process (Sorsa et al., 2015). For this study, I limited biases through the technique of bracketing. Bracketing is a common technique in qualitative

analysis in which researchers identify possible personal biases and attempt to eliminate any impact the biases may have on the research process (Chan, Fung, & Chien, 2013; Sorsa et al., 2015). I used bracketing to ensure that personal emotions and biases did not impact the results of the study. Additionally, after I completed the interviews, I conducted member checking, which is a method to assure the validity of the data and increase the academic rigor of the study (Birt, Scott, Cavers, Campbell, & Walter, 2016).

As I was the primary instrument of data collection in this qualitative multiple case study, I used semistructured interviews with participants in conjunction with an interview protocol. Conducting interviews is one of the primary means for collecting data in the qualitative method (Bailey, 2014; Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014). Researchers can utilize interview protocols to assure consistency when conducting semistructured interviews (Castillo-Montoya, 2016). I utilized an interview protocol (see Appendix A) as a basis for conducting the interviews and used follow-up questions as necessary. The objective was to conduct consistent interviews to allow participants the opportunity to provide information on the subject.

Participants

Researchers conducting qualitative studies need to establish eligibility requirements for their participants (Yin, 2014). Additionally, participants of the study must have knowledge relating to the research question to qualify as eligible for a study (Cleary, Horsfall, & Hayter, 2014; Robinson, 2014). The participants of this study were hospital leaders identifying and implementing organizational strategies to reduce readmissions. Additionally, the hospitals I included in this study rank below the Missouri

state average rate for controlling readmissions as of July 2017 (Missouri Hospital Association, 2017). In addition to the participants' willingness to partake in the study, team members had a minimum of 5 years of service in their current or similar capacity.

To gain access to the participants, I contacted a gatekeeper at each facility who helped identify eligible participants. Utilizing a gatekeeper for access to participants is an appropriate method for researchers conducting scholarly studies (Maramwidze-Merrison, 2016). Gatekeepers are organizational team members who facilitate efforts with the researcher and the participants (Turner & Almack, 2017). Once the gatekeeper and researcher identify participants, the researcher needs to ensure the eligible participants agree to the study (Lynn, 2014). Prior to obtaining approval from Walden University's Institutional Review Board, I sent gatekeepers a letter of cooperation (see Appendix B) to establish a relationship with the organization. Once I received the letter of cooperation and approval from the Institutional Review Board, I identified participants in each organization. Additionally, I had each participant sign an informed consent form and provided them a copy prior to conducting the interviews.

Establishing a working relationship with participants is vital to conducting reliable qualitative interviews. Creating a positive connection with participants is essential to establishing trust (Puig, Erwin, Evenson, & Beresford, 2015). Establishing trust makes the participants more comfortable during the interview, which increases the likelihood of the participants answering honestly (Doody & Noonan, 2013). Additionally, having a positive working relationship with the participants can help resolve any tensions or problems that may arise during the process (Brett et al., 2014). Furthermore,

establishing rapport is an integral aspect to conducting a reliable study (Kral, 2014). I had

a professional relationship with some potential participants and may have developed a

relationship with new participants. To ensure participants were comfortable during the

process, I communicated and answered any questions or concerns with honesty.

Research Method and Design

The purpose of this qualitative case study was to examine the organizational

strategies hospital leaders use to reduce hospital readmissions. To ascertain this

information, I conducted semistructured interviews with hospital leaders of six facilities

in Southwest Missouri. The appropriate method for conducting this type of research is a

qualitative multiple case study. Researchers utilize qualitative case studies to gain an

understanding of a phenomenon by collecting data through interviews, observations, and

other artifacts (Yin, 2014).

Research Method

The research method for this study was the qualitative method. The qualitative

method is most appropriate for exploring the *what*, *how*, and *why* of a phenomenon or

situation (Crocker et al., 2014). The objective this study was to understand how hospital

leaders reduce readmissions and what organizational strategies are successful. The

qualitative method is an effective approach for researchers attempting to have thorough

discussions with eligible participants (Ahmed & Ahmed, 2014). Additionally, researchers

can apply the qualitative method to ask specific questions in relation to the topic of the

study (Bristowe, Selman, & Murtagh, 2015). Researchers can use the qualiative method

because they can obtain rich detail necessary to understanding complex issues such as reducing hospital readmissions.

The qualitative method is appropriate because of the information-rich nature of data collection via the means of recorded interviews, personal notes from the researcher, and additional articfacts (Cairney & St Denny, 2015; Edward & Welch, 2011). Through these data collection methods, researchers use the qualitative method to interpret the description of a phenomenom to gain a deeper understanding of the subject (Yin, 2014). I utilized the qualitative method to understand participants' perspectives, understandings, and experiences to create a detailed analysis of the topic.

Although the quantitative and mixed methods approaches to research have benefits, they were not appropriate for this study. Researchers using the quantitative method employ the use of surverys and experiments as the primary means of data collection (Parry, Mumford, Bower, & Watts, 2014). Additionally, scholars utilizing the quantitative method produce calculable mertics with which to assess variables (McCusker & Gunaydin, 2015; Park & Park, 2016). For this study, I did not use hypothesis testing, written surveys, or numerical calculations. Thus, I did not use the quantitive method for my doctoral research study.

The mixed method approach combines both the qualitative and quantitative methods (Yin, 2014). . The mixed method is a framework for integrating multiple techniques into a study (Fetters, 2016). Additionally, Caruth (2013) stated the mixed methods approach to research is a more complex method, and researchers can obtain a deeper level of insight than with either the qualitative or quantitaive method. However,

the mixed method approach does have a quantative aspect. I obtained my data through the use of semistructured interviews and did not have a quantitative aspect in my study. Therefore, using the mixed method approach was not appropriate for the research study.

Research Design

Once a researcher determines the appropriate method for a study, they must then consider the various designs in that method. Researchers use the design of the study to frame the project and add structure to the process (Yazan, 2015). Researchers need to understand the strengths and limitations of using various designs to assure they produce the optimal design for a given research project (Yin, 2014). Additionally, by documenting their design, researchers make their studies easier for others to replicate (Ioannidis et al., 2014). For this research study, I utilized a multiple case study design to explore organizational strategies hospital leaders use to reduce readmisssions.

The case study design was the optimal design for this reseach study. Scholars and researchers utilize the case study design to understand the solution to *how* and *why* questions in a research project (Yin, 2014). Furthermore, by conducting a multiple case study, researchers can limit their biases and improve external validity (Shekhar, 2014). Vohra (2014) stated the case study design is appropriate for understanding how leaders operate in the context of a larger environment. I used the case study design to study organizational strategies hospital leaders use to reduce hospital readmissions.

Although the case study design was the most appropriate design for the study, researchers using the qualitative method can also use ethnography. Researchers using ethnography gain rich information about the social contexts in which participants live

(Jerolmack & Khan, 2014). Additionally, scholars can use the ethnographic design to understand the organizational culture of companies (Cincotta, 2015). Furthermore, researchers can use ethnography to thoroughly analyze the relationship between participants and the culture (Gill, 2014). When using ethnography, researchers focus on the culture of a group and not necessarly a particular aspect. I did not analyze the culture nor the relationship of hospital leaders to the culture. Therefore, ethnography was not an appropriate design for the study.

Phenomology is another form of qualitative inqury. When utilizing the phenomenological design, researchers attempt to understand the lived experiences of the paricipants (Chan & Walker, 2015; Onwuegbuzie & Byers, 2014). Additionally, researches using phenomenology attempt to expand upon how the participants position themselves in an environment and how they interprete the world around them (Dowden, Gunby, Warren, & Boston, 2014). I did not attempt to understand the experiences of hospital leaders but rather their organizational strategies in relation to hospital readmissions. Therefore, I did not use the phenomenological design.

When conducting qualitative studies, researchers need to achieve data saturation. Data saturation occurs in qualitative studies when reserachers have enough information to duplicate the study and when they can no longer code new themes (Fusch & Ness, 2015). Additionally, researchers need to reach data saturation to assure the validity of the data (Fusch & Ness, 2015). Marshall, Cardon, Poddar, and Fontenot (2013) stated researchers attain data saturation when they no longer obtain new information from additional interviews or data sources. Yu, Abdullah, and Saat (2014) stated reseachers need to

continue to collect data until they reach data saturation. Researchers need to understand data saturation adds validity to qualitative studies and is a priority when conducting data collection.

Population and Sampling

For this study, I utilized a purposive sample of participants. Palinkas et al. (2015) and Duan, Bhaumik, Palinkas, and Hoagwood (2015) stated researchers use purposive sampling in qualitative studies to identify participates who can provide context rich themes on a specific subject. When using a purposeful sample, researchers identify participants that can provide an in-depth perspective on a given phenomenon (Benoot, Hannes, & Bilsen, 2016). I utilized a purposeful sample for this study because the objective is to understand specific organizational strategies hospital leaders use to reduce hospital readmissions.

The population of the study included leaders of hospitals in SW Missouri. When considering population sample size, researchers need to incorporate practical and theoretical considerations (Robinson, 2014). For qualitative populations, the size of the population sample may vary from a researcher's original target number (Noohi, Peyrovi, Goghary, & Kazemi, 2016; Robinson, 2014). Ahmad et al. (2013) conducted a qualitative case study that was comprised of 12 semistructured interviews even though the target was 14 interviews. The population target for this study was 15 hospital leaders in the c-suite domain who have at least 5 years of experience in their current or similar role.

Another core element of qualitative data sampling is assuring data saturation. In qualitative studies, data saturation occurs when a researcher is conducting interviews and

identifies no new themes in subsequent interviews (Fusch & Ness, 2015). The number of interviews researchers need to achieve data saturation varies because each research project is unique. Noohi et al. (2016) achieved data saturation in 10 interviews while Poteat, German, and Kerrigan (2013) needed 30 interviews. For this study, I conducted interviews until I reached data saturation.

Establishing inclusion and exclusion eligibility criteria is a fundamental aspect of a qualitative research study (Robinson, 2014). The eligibility criteria for the population sample included (a) a hospital leader in C-suite or senior management position, (b) at least 5 years experience in the current or similar position, (c) and a willingness to partake in a digital audio-recorded interview. I used the criteria to ensure participants had an in-depth understanding of hospital readmissions and to eliminate hospital team members who did not have a holistic view of hospital operations.

When conducting qualitative studies, researchers need to be aware of the interview setting. Aloysius (2013) used a semistructured interview approach to gain an understanding of participants' experiences and knowledge. Addtionnally, Bowden and Galindo-Gonzalez (2015) advocated for conducting and recording face-to-face interviews as opposed to email interviews. Conducting face-to-face interviews is a highly reliable mechanism for assuring data validity in qualitative studies (Christensen, Ekholm, Glümer, & Juel, 2013). Researchers who utilize face-to-face, semistructured interviews allow participants to answer each interview question according to their knowledge and expertise. I conducted face-to-face interviews with participants in their own environment,

which allowed participants to be comfortable and freely share their experiences and knowledge.

Ethical Research

When conducting qualitative research studies, researchers need to be aware of the ethical considerations of participants and other stakeholders. Yin (2014) stated ethical integrity is a core component of research. Obtaining informed consent is a common requirement for conducting research studies (Dolan, 2015). By obtaining informed consent from participants, researchers assure participants are aware the voluntary nature of the study and therefore can decide if they would like to contribute (Beskow, Check, & Ammarell, 2014). As part of completing an ethical research project, I obtained an informed consent form (see Appendix C) from each participant prior to conducting any data collection. Prior to conducting interviews, I met with each participant, had them sign the informed consent form, and provided them a copy.

Another aspect of maintaining ethical standards throughout a research study is to receive training. During the doctoral study process at Walden University, independent scholars must receive training on the standards and practices that comprise an ethical research study. I had a certificate of completion from the National Institute of Health from the training on ethical research (see Appendix D). I used the standards and practices from the training during my research study.

Participants in a research study may elect to withdraw from the study (Barbro et al., 2016). Any number of participants may elect to withdraw from a research study during the process (Thorpe, 2014). Thorpe (2014) stated approximately 33% of the

participants of the study withdrew for a variety of reasons, which created both ethical and methodological issues. However, researchers must acquiesce to the participants desire to withdraw during any stage of the research study (Hadidi, Lindquist, Treat-Jacobson, & Swanson, 2013). As such, I ensured participants were aware of their ability to withdraw from the study without any resistance or consequences.

Some researchers use incentives to recruit participants to their studies (Thrul, Stemmler, Goecke, & Bühler, 2015). Incentives may create a desire for participants to join in a study and help increase participation. For example, Beskow et al. (2014) paid each participant of their study $40 to contribute. However, participants of this study did not receive incentives other than a summary of the study and findings.

Protecting the identity of participants is an ethical imperative when conducting research involving human subjects (Miller, 2015). Bradbury-Jones, Taylor, and Herber (2014) stated protecting participants is a fundamental aspect of conducting a research project. As part of researchers' duty to their participants, researchers need to assure the privacy and confidentiality of the participants (Yin. 2014). As such, I kept all identities of participants of my study private and did not hold discussions with participants in public areas. I assured privacy of our conversations by conducting interviews in private offices or conference areas as permissible by the participant.

To assure privacy beyond conversing with participants, data I collected throughout the study will remain confidential and secure for 5 years after the completion of the study. Protecting the confidentiality of participants throughout the research process is a vital component for an ethical study (Bradbury-Jones et al., 2014; Morse &

Coulehan, 2015). In the final study, I did not use the names of participants nor their corresponding organizations. Additionally, the coding scheme for the data did not contain any personally identifiable information. The storage of the electronic data is password protected, and I am storing any physical data in a locked storage file in my personal dwelling. After 5 years, I will destroy the content, both electronic and physical. Walden University's Institutional Review Board number for this study is 11-07-17-0642968.

Data Collection Instruments

The researcher is the primary data collection instrument in qualitative studies (Peredaryenko & Krauss, 2013; Xu & Storr, 2012). Additionally, qualitative researchers may use semistructured interviews as one of techniques to collect data (Chan et al., 2013). For this qualitative study, I was the primary instrument for data collection and used a semistructured interview method with open-ended questions to elicit responses.

Qualitative researchers need to utilize more than one source of data in a study. Cope (2014) stated researcher should use more than one source of data when conducting research studies. Additionally, Carter et al. (2014) stated using multiple sources of data increases the validity of a study. Secondary data sources include organizational documentation, field notes, and archived records (Yin, 2014). I used multiple data sources throughout the study.

Researchers can obtain reliable data from the use of semistructured interviews (Yin, 2014). However, during a semistructured interview, researchers need ask specific questions and not lead participants to answers (Chan et al., 2013). During the interviews, I used an interview protocol including eight research questions. Additionally, I limited

the interviews to 30 to 45 minutes to respect the time of the participants. Xu and Storr (2012) stated interviews can be recorded with the approval of the participant. With the participants' consent, I recorded the interviews and then had a professional company transcribe the interviews verbatim. I had the transcription service sign a nondisclosure agreement (see Appendix E).

Data triangulation is another aspect of qualitative studies researchers need to achieve to ensure reliability and validity. Method triangulation is a form of data triangulation and is the process of using multiple data sources to achieve a complete understanding of the subject area (Brown et al., 2015; Carter et al., 2014). Hussein (2015) stated researchers need to utilize multiple data sources to achieve data triangulation. Additionally, researchers who achieve data triangulation can assure the validity of the data becauce of the convergence of multiple sources (Carter et al., 2014). In addition to interviews, researchers who pursue data triangluation can utilize different methods of collecting data such as observing, note taking, and keeping a journal (Cope, 2014). To improve the validity of the interview data, I triangulated interview data with alternate sources including organizaitonal documentation and artifacts, checklists and operational documention, and any artifacts the participants provided. Additionally, I utlized information from observations and note taking during the research process.

Researchers can also use member checking to increase the reliability and validity of the study. Member checking is the process of synthesizing participants' responses and having the participants validate their answers (Birt et al., 2016). Researchers use member checking to increase the reliability and quality of the data (Caretta, 2016; Madill &

Sullivan, 2016). Once the interviews were completed, I synthesized the responses to each question. I emailed each participant with a synapsis of their answers to each question for them to verify the information. Additionally, I used member checking as an opportunity for participants to add any other information they deemed relevant.

Qualitative researchers can use a research protocol when conducting their interviews with participants. Darawsheh (2014) stated researchers can create an interview protocol, a guide or checklist for the interview, prior to the interview to assure they cover specific items with participants. Both Amin, Khan, and Tatlah (2013) and Hussain, Chandio, and Khan Sindher (2013) conducted qualitative studies and used interview protocols to obtain information and context rich data. I used an interview protocol (see Appendix A) during my interviews, which assured the collection of rich qualitative data and met all important objectives are during the process.

Data Collection Technique

The data collection techniques for this study included semistructured interviews that I conducted at the location of each participant. Additionally, I reviewed organizational documentation, policies, procedures, and initiatives. Researchers use semistructured interviews as a framework for guiding interviews because they can steer the interview with prewritten questions and ask follow-up questions when necessary (N. Brown, Lui, Robinson, & Boyle, 2015; Chan et al., 2013). Furthermore, Darawsheh (2014) stated researchers could contact the participants prior to the interview. I contacted the participants via email or phone prior to the interview, and I provided them with the informed consent form, explained the format and time frame, informed them that they

may withdraw at any time, and to asked permission to record the interview. I used the semistructured interview technique to obtain context rich information and documentation that hospital leaders used to reduce hospital readmissions.

Researchers need to be aware of benefits and limitations of using semistructured interviews and reviewing organizational artifacts. One advantage of using semistructured interviews is that researchers can use them as a tool to engage participants to obtain an in-depth understanding of a given phenomenon (Carter et al., 2014). Additionally, researchers have a large degree of flexibility when using semistructured interviews (Z. C. Chan et al., 2013; Darawsheh, 2014). However, conducting semistructured interviews may limit the number of participants because of time constraints in processing and transcribing the data (Carter et al., 2014). Researchers often collect documents, observations, and field notes to help support the themes from participant interviews (Carter et al., 2014). However, a limitation of using organizational documentation as a data source is that some participants may not be willing to share sensitive artifacts making them difficult for researchers to obtain (De Massis & Kotlar, 2014).

Researchers often use an interview protocol during their interviews. The process for collecting data included the use of conducting semistructured interview and an analysis of organizational documentation. Elements of the interview protocol include emailing participants the informed consent form, asking questions from the research questions list, and conducting member checking. Member checking is a technique researchers use to assess and validate qualitative data (Madill & Sullivan, 2017). This constitutes an abriged version of the interview protocol.

Data Organization Technique

Creating a case study database is an important aspect of qualitative research (Rowley, 2002). Qasem, Aji, and Rodgers (2017) highlighted the importance of establishing the organization of data. Maintaining the organization of data throughout the qualitative process increases the reliability of the study (Yin, 2014). To maintain the organization of data, I utilized an Excel spreadsheet containing the record of the date of the interview, the name of the participant, major themes from the interview notes, and information from alternate data sources. Additionally, I coded all participants' names to assure their confidentiality. I compiled all physical notes, reflective journal entries, and other artifacts into one location as the physical database. By having the data in one location, I organized the data in such a manner that it is easily accessible.

Protecting the data ensures participants' information is safe and others cannot access the information. Ensuring data is confidential is a major component of conducting research (Morse & Coulehan, 2015; Yin, 2014). I am storing electronic data on a computer that requires a password to gain access to the system and will store the data for 5 years. Additionally, I am storing physical copies or records in a secure, locked location in my personal dwelling. After 5 years, all electronic and physical data will be destroyed by deleting all electronic files and shredding all physical documentation.

Data Analysis

Researchers can use multiple methods of data analysis in a qualitative research study (Yin, 2014). To analyze data from the study, Elo et al. (2014) stated researchers need to be disciplined when organizing and preparing the data. For this study, I used

methodological data triangulation as my data analysis approach. Using data triangulation increases the validity of the study (De Massis & Kotlar, 2014). Researchers using methodological triangulation discover themes and concepts from multiple sources of data including interviews, observations, personal notes, and organizational documentation (Carter et al., 2014). I utilized Yin's five step process including qualitative analysis software as the primary data analysis process for this study.

Yin (2014) advocated for qualitative researchers to have a strategy to analyze data, which helps avoid errors and delays in the data analysis stage. Jagadish et al. (2014) described a systematic method researchers can use to conduct data analysis including collecting data, extracting and cleaning, aggregation and representation, modeling and analysis, and synthesis. I used all data I collected during the collection phase in the data analysis process. I recorded and had a professional service transcribe the interviews, and I conducted member checking with the participants (Birt et al., 2016). Additionally, I reviewed organizational documentation and artifacts relating to hospital readmissions and requested assistance and guidance as necessary. Carter et al. (2014) stated methodological triangulation consists of utilizing multiple sources of data to discern themes. I examined all sources of data to identify reoccurring themes and concepts from the sources.

Researchers can use a variety of software programs when conducting data analysis on qualitative data. The use of computer programs to assist qualitative researchers is an integral part of the data analysis process (Derobertmasure & Robertson, 2014; Sotiriadou, Brouwers, & Le, 2014). Additionally, Yin (2014) advocated for the use

of computer-assisted tools because creating a research database adds reliability of the study. I utilized the DQA Miner Lite as my computer program to assist with the data analysis and organization.

Once I organized the data into a research database, I used thematic analysis to identify reoccurring themes and concepts. Thematic analysis is a systematic process researchers use to analyze data in search for reoccurring themes and concepts (Teruel, Navarro, González, López-Jaquero, & Montero, 2016; Walters, 2016). After identifying the main themes of the data, researchers need to relate the themes back to the overarching context of the research (Pascoal, Narciso, & Pereira, 2014). In conjunction with the assistance from the computer software, I used thematic analysis to identify reoccurring themes from the data sources.

Reliability and Validity

Researchers need to assure the reliability and validity of a qualitative research study to guarantee the study and the findings are credible (Anney, 2014). Connelly (2016) stated the trustworthiness of a qualitative study includes credibility, confirmability, transferability, and authenticity. Additionally, Baillie (2015) added to the list of components that comprise the trustworthiness of a study to include dependability. Despite minor nuances in the terminology depending on the author, researchers need to use certain processes and procedures to ensure their study is reliable and valid. However, I did not conduct a pilot study prior to beginning the research.

Reliability

Qualitative researchers can establish reliability of a study by assuring dependability. Researchers document the dependability of their studies by creating an audit trail of their decision-making process throughout the entire study (Connelly, 2016). By documenting the process throughout a study, researchers ensure other scholars can audit their research, which increases the dependability of the study (Anney, 2015; Baillie, 2015). Additionally, researchers can reduce errors by adhering to strict processes to ensure reliability (Yin, 2014).

Two ways researchers can ensure reliability are to conduct member checking with participants and attain data saturation. Member checking is the process of synthesizing participants' responses to questions during the interview and verifying the answers prior to data analysis (Madill & Sullivan, 2017). Researchers use member checking to increase the trustworthiness of collected data (Caretta, 2016). Another way researchers assure reliability is to obtain data saturation from multiple sources. Researchers obtain data saturation in a study when they receive no new information from additional data sources (Fusch & Ness, 2015; Marshall et al., 2013). Researchers need to continue the data collection process until they obtain data saturation (Yu et al., 2014) because it increases the reliability of the study (Fusch & Ness, 2015).

Validity

Researchers need to demonstrate the validity of their study (Shekhar, 2014; Yin, 2014). Researchers demonstrate the validity of their studies by ensuring the data and

processes are accurate (Baillie, 2014; Elo et al., 2014). Three components of validity include credibility, confirmability, and transferability.

Credibility. Researchers can increase the credibility of a qualitative study by reviewing the responses to interview questions with the participants (Cope, 2014). One technique researchers can use to assure the credibility of the study is to engage in member checking with participants after the interviews (Baillie, 2015). Member checking is a systematic process by which researchers confirm the participants' responses to interview questions (Caretta, 2016). I conducted the process of member checking by synthesizing participants' responses and then providing them the information via email. By emailing the participants a summary of their responses from the interviews, they verified the accuracy of their responses and ensured their answers were complete.

Confirmability. Researchers establish confirmability of a study by ensuring they derive the findings of a study from the data, not personal biases (Anney, 2015; Baillie, 2015). Researchers can ensure the confirmability of a study by establishing an audit trail, engaging in member checking, and data triangulation (Anney, 2015; Connelly, 2016). I created a research database, both physical and electronic, which was my audit trail. Additionally, I engaged participants in member checking after the interviews to ensure their responses are accurate, and I triangulated the themes using multiple data sources.

Transferability. Another aspect of qualitative validity is transferability. Transferability is the ability of other researchers and scholars to transfer the results a study to another context (Anney, 2015). Although is it not the responsibility of the researcher to ensure the transferability of a study, researchers need to provide substantial

context and rich descriptions of their findings to support other scholars (Connelly, 2016; Cope, 2014). To support other researchers with transferability, I utilized an audit trail, member checking, and provided a context rich analysis of the findings.

Transition and Summary

In this section, I provided information regarding the research project. I began the section by restating the purpose statement. After the purpose statement, I explained the role of the researcher and participant selection and criteria. Additionally, I provided justification for the qualitative method over the quantitative method and mixed method. I used the multiple case study design to research organizational strategies hospital leaders use reduce readmissions. I also detailed the population and sampling method, ethical research considerations, data collection techniques, research instrument, and data organization. I ended section 2 with a discussion on reliability and validity.

In the next section, I present the findings of the study. The section starts with a brief introduction including the purpose of the study and the research question. I present the results of the study, the application to the professional landscape, and implications for social change. Additionally, I discuss recommendations for action and future research, my personal reflections, and provide a conclusion for the study.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multiple case study was to explore organizational strategies hospital leaders use to reduce readmission rates. Hospital leaders use multiple strategies to reduce readmissions but also encounter numerous barriers. The barriers hospital team members encounter are factors within their facility as well as elements outside of their control. Regardless of the approaches the hospital leaders use to reduce readmissions or the barriers they encounter, healthcare is a complex, multifaceted system.

The four major themes from the qualitative interviews are population health, hospital operations and patient interactions, leadership and mission, and barriers to reducing readmissions. The major themes are holistic viewpoints with numerous reoccurring commonalities. The themes of the study relate to one another and are indicative of a complex system. The interconnectedness and overlap of the major themes is representative of the complex nature of healthcare. To effectively reduce hospital readmissions a collaborative, community-based approach is necessary.

Presentation of the Findings

The overarching research question for this study was: What organizational strategies do hospital leaders use to reduce hospital readmission rates? The target population for the study included eight C-suite and seven manager level team members from five hospitals located in Southwest Missouri. I used semistructured interviews and reviewed organizational artifacts for my data collection. I also reviewed documents at each of the hospitals. Because of issues related to confidentiality, I could not take some

documents off the premises. These organizational artifacts include board level briefings

and subcommittee records, senior leadership review of readmission rates, and

documentation regarding telehealth programs. The organizational artifacts support the

findings of the semistructured interviews.

I conducted a total of 15 interviews with hospital leaders from five hospitals in

Southwest Missouri. The interviewees ranged from CEO to director-level team members.

All participants met the criteria for inclusion in the study, and no participants withdrew.

Additionally, after the interviews were transcribed, I conducted member checking with

each participant to ensure the accuracy of my interpretations of the interviews. Table 2 is

the participant coding for the study.

Table 2

Participant Coding

Hospital	Participant	Title	Code
1	1	Director	H1P1
	2	Chief nursing officer	H1P2
	3	Director	H1P3
2	1	Chief operations officer	H2P1
	2	Chief medical officer	H2P2
	3	Chief nursing officer	H2P3
	4	Chief executive officer	H2P4
3	1	Chief nursing officer	H3P1
	2	Chief operations officer	H3P2
4	1	Director	H4P1
	2	Vice president	H4P2
	3	Director	H4P3
5	1	Director	H5P1
	2	Manager	H5P2
	3	Manager	H5P3

From the data, I identified four major themes. The major themes of the study are population health, hospital operations and patient interactions, leadership and mission, and barriers to reducing readmissions. I identified numerous core themes as well. These core themes comprise the granular elements of the major themes. Many of the major and core themes relate to previous literature on reducing readmissions. Table 3 is a summary of the major and core themes.

The conceptual framework for the study was the theory of CAS. Leaders and scholars can use complex systems as a framework to understand their organizations and the environment in which they operate (Brainard & Hunter, 2016). CAS is an appropriate model to frame research on the modern healthcare system because of the complex nature of the industry and corresponding business problems. The overlap, interconnectedness, and complexity of the major and core themes are indicative of CAS.

Table 3

Major and Core Themes

Major theme	Core strategies
Population health	Coordination across the care continuum
	Patient education
	Developing local and community approaches to healthcare
Hospital operations and patient interactions	
	Multidisciplinary rounding teams
	Postacute services
	Immersion projects
	Monitoring of readmission rates
Leadership and mission	Setting the mission and vision
	Enabling team members and reducing barriers
	Taking a local approach
Barrier to reducing readmissions	Social factors
	Patient compliance
	Financial constraints
	Access to care

Major Theme 1: Population Health

Population health is the first major theme of the study. The concept of population health is not a new idea to healthcare and is representative of the transition from the fee-for-service landscape to the value-based environment (Nunlist et al., 2014). Although population health is not an explicit strategy or initiative for reducing readmissions, it is a framework hospital leaders can use to develop initiatives for reducing readmissions. Additionally, population health is an example of how hospital readmissions are a complex problem with multiple stakeholders rather than a linear, complicated problem.

Many of the core themes of population health are aspects of the healthcare system

hospital leaders need to consider when devising strategies to reduce readmissions.

The core themes of population health are coordination across the care continuum,

patient education, and developing local and community approaches to healthcare. Many

of the core themes from population health are also aspects of other major themes.

Hospital leaders cannot view the core themes in isolation. Rather, they need to

understand how strategies fit in the holistic system of healthcare.

Coordination across the care continuum. The first core theme of the major

theme of population health is acknowledging healthcare as a system of providers treating

patients across a continuum of care. Hospital leaders acknowledged their internal teams

and clinicians are part of a larger network of providers and teams addressing patient care.

Understanding the care continuum is vital to providing care for the patients when the

hospital clinicians discharge patients to the postacute environment (Bosko & Gulotta,

2016). H4P2 stated "First, it is key that we understand the continuum of care as patients

move through the hospital and the outpatient world." One strategy identified from the

continuum of care theme is to integrate communication initiatives and feedback loops

with postacute care facilities (PACF).

Participants from H1 identified relationships with PACF as a core strategy for

reducing readmissions. The participants discussed how they utilize a multidisciplinary

team that includes members from the local PACF to analyze readmissions. H1P2 stated,

Sometimes, if a patient gets sick in their care, they tend to just call an ambulance

and transfer the patient back to the hospital, which in some cases is premature. It

is difficult to help them implement a protocol for those types of situations, so they

don't just transfer patients back to the hospital. The key issue is educating the

nurses and doctors at the PACFs.

By including team members from the local PACF, they can educate the PACF's team

members and provide feedback to the PACF on their readmission rates. Additionally, the

participants stated after they understand the needs of the PACF and why patients return to

the hospital, they can help provide resources to the PACF.

Another strategy is to supply patients with multiple postacute services after they

leave the care of the hospital clinicians. H1P3 stated, "The most effective strategy has

been setting patients up with postacute services. The more postacute services they have

access to, the better they do in terms of readmissions." Ahmad et al. (2013) and

McClintock et al. (2014) agreed providing postacute services is vital to the care of the

patient. Providing postacute services to patients supplements the care clinicians provide

from PACF.

When patients transition to their home settings, they need access to postacute

services such as follow-up appointments. McCarthy et al. (2013) stated follow-up

services, including both medical and social issues, are important to reducing

readmissions. Scheduling these services prior to patients leaving the care of the hospital

is vital in reducing readmissions. Additionally, multiple participants acknowledged the

need to not only schedule follow-up appointments with primary care physicians but also

have care managers conduct follow-up phone calls with patients to ensure they have

transportation to the follow-up appointment and are taking their medications. Ensuring

patients have access to follow-up medical and social services is a core strategy for reducing readmissions.

Another emergent theme consistent with providing follow-up phone calls and appointments after discharge is to transition care to the outpatient domain. H4P2 stated

The goal is to keep them out of the hospital and do what is right for the patient. You look at all the things that can go wrong in the hospital from infections to complications. It is best for the patient to treat them on the outpatient side.

Additionally, H2P4 stated

We know that a large amount of people die in hospitals each year from hospital based infections so our objective is to keep them from coming back in the hospital. We are looking to treat you with the best skills we have to keep you out of the hospital and have a productive life.

Hospital leaders need to embrace the transition to providing primary care in the outpatient environment. However, transition from primary care to the outpatient domain has financial implications. Nevertheless, all 15 participants recognized the need to understand population health and care across the continuum, which includes patients having access to primary care in the outpatient environment.

Employing community health workers to interact with and provide information to patients' postdischarge is another strategy hospital leaders use to reduce readmissions. Community health worker is a generic term for hospital team members who interact with patients after they leave the care of the hospitals. Other terms for community health workers are community paramedics and community health aides. H2P1 stated

"Community health aides are an important factor as well. They are team members who check on patients at home to follow-up with you and even go to your provider to make sure you make the appointment." Employing community health workers is also a strategy Ahmad et al. (2013) cited to help reduce hospital readmissions. Participants from three of the five facilities stated they use community health workers to help reduce hospital readmissions.

The last theme from the core theme of care coordination is communication. Although communication is a broad term and not a specific strategy, hospital leaders view communication as an important aspect of coordinating care. Snyderman et al. (2014) stated that communication between patients and providers could be a contributing factor to hospital readmission. Two-thirds of the participants cited communication, both within their facility and with other organizations, as a factor for hospital readmissions. Ensuring open communication among vested stakeholders helps reduce the likelihood of mistakes. H2P1 stated

> Communication during handoffs is a big opportunity for mistakes, not taking anything away from our clinicians. It's just that when you've got that many different hands taking part of the care of the patients, every time you have to hand it off, there's another opportunity for that to get missed.

Communication among physicians, nurses, patients and their families, hospital leaders, care coordinators, and PACF is a critical factor for ensuring patients have a successful transition from the acute-care setting to the postacute environment.

Patient education. The second core theme from the major theme of population health is patient education. Bosko and Gulotta (2016) cited patient education as a contributing factor for patient readmission. Of the fifteen participants in the study, 11 cited patient education as a critical issue affecting hospital readmissions. Hospital leaders attempt to empower their patients to be champions of their own health, but some patients do not understand their conditions, treatments or how to manage their symptoms. These patients are therefore more likely to require care either in the hospital or in the emergency department. By educating patients on their conditions, hospital team members can help the patients manage their own health.

Patient education and health literacy, though similar in some regards, are different elements. Jotterand, Amodio, and Elger (2016) stated patient education is a valuable tool for clinicians because when clinicians engage in patient education, they help empower patients to become more independent in managing their own health. Hospital team members can attempt to inform patients about their conditions, but patients need to understand and apply the information clinicians provide them to be successful. H5P3 stated "I think health literacy is a really big issue, especially in our rural population. They might read and write, but health literacy is a totally separate issue." Health literacy is a patient's ability to understand and use health information and services in a manner that contributes to positive health outcomes.

Making resources available to help patients manage their own health is one strategy to improve patients' health literacy. One organizational artifact from the research is the use of customized welcome packets containing information on patients' individual

conditions. In conjunction with the welcome packet is a discharge packet containing

information on postacute care. H2P3 stated

> Our welcome packet has areas where the patients or family members can write
>
> down questions to ask. This rolls in with patient education and when they get
>
> home their information is organized in the folder and their family knows where it
>
> is.

Figure 1 and Figure 2 are organizational artifacts of the welcome and discharge packet.

By providing patients and their families an opportunity to document questions,

hospital team members can help improve the communication between patients, families,

and clinicians. Through the provision of additional informational resources, patients can

attempt to manage their conditions on their own, without the need for hospitalization,

which is consistent with research from Bosko and Gulotta (2016). Hospital leaders also

provide resources to patients through partnerships with other community organizations,

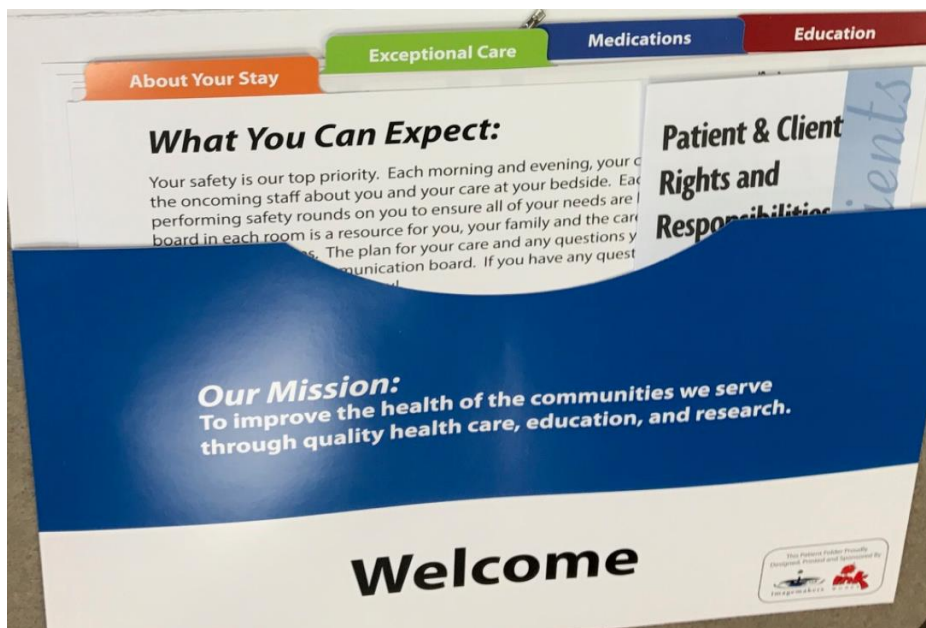which may not have a healthcare focus.
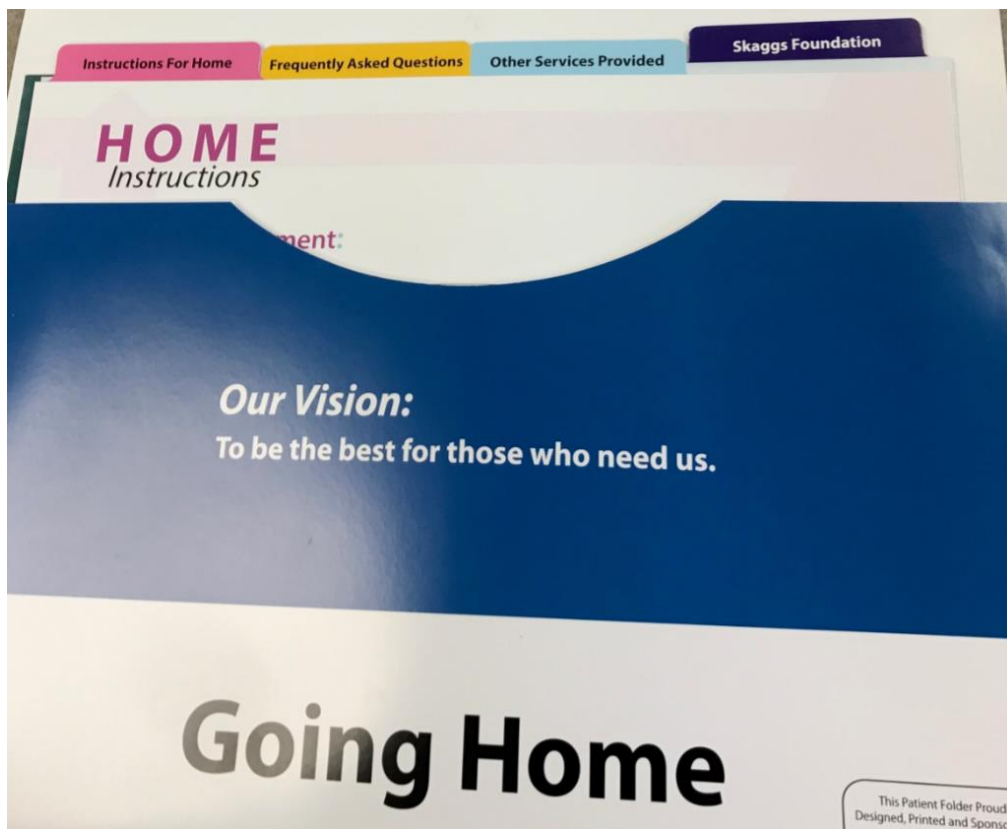
Figure 1. Welcome Packet

Figure 2. Discharge Packet

Developing local and community approaches to healthcare. The third core theme from the major theme of population health is developing local and community approaches to healthcare. Providing routine shelter, nutrition, and social elements is not in the scope of what hospital team members provide to patients. Therefore, hospital leaders need to coordinate and create relationships with other community organizations that do provide the basic necessities to keep patients healthy. Additionally, McCarthy et al. (2013) stated that developing community relationship is a vital aspect of controlling hospital readmissions. H4P1 stated

> We start by being proactive and building relationships with other community organizations, such as The Kitchen or Salvation Army. It comes down to being able to be better partners with them to provide the necessary resources. Are we serving the needs of the community? Because, if not it's going to be a drain on everybody.

Additionally, H4P1 observed malnutrition as an influencing factor and stated "things like malnutrition because they do not have a good diet. We need to try and get those patients connected with the local food bank or other dietary needs." Hospital leaders can use this as both a preventative strategy for patients in the emergency department and as a post-discharge tactic.

By developing partnerships with community organizations, hospital leaders can enable their team members to effectively provide resources for patients beyond their clinical conditions. DeAngulo and Losada (2015) argued for a multidimensional approach to healthcare via collaboration among community stakeholders. Hospital

leaders identified community partnerships as a method for treating patients beyond their clinical condition and helping keep them out of the hospital.

Major Theme 2: Hospital Operations and Patient Interactions

Hospital operations and patient interactions constitute strategies hospital leaders utilize to reduce readmissions with internal team members. These are specific reoccurring themes from the semistructured interviews. The core themes are multidisciplinary rounding teams, postacute services, immersion projects, and monitoring of readmission rates.

Multidisciplinary rounding teams. The first core theme of the major theme of hospital operations and patient interactions is multidisciplinary rounding teams. Ahmad et al. (2013) highlighted interdisciplinary rounding as a strategy to reduce readmissions. In this strategy, team members from different organizational domains form a team to discuss and share their information on patients. H3P1 stated

> Our multidisciplinary rounding has been a great team and program. This way the physician can hear from all levels of the care team. Everybody holds a piece to the puzzle including the nutritionist, the social worker, and the nurses taking care. That forum allows everybody to bring in their assessment, which is going to lead to the success or the detriment of the patient.

Of the participants, 40% identified multidisciplinary rounding as a strategy for reducing readmissions.

Multidisciplinary rounding teams also increase communication among clinicians. H2P1 stated "also, by incorporating nurses into the team, it is a good opportunity for the

team members who spend the most time with the patients to communicate their knowledge." The use of multiple disciplinary rounding teams is an important strategy for hospital leaders to reduce readmissions.

Postacute services. The second core theme of the major theme of hospital operations and patient interactions is postacute services. Every participant in the study identified providing postacute services to patients as a strategy for reducing readmissions. Strategies such as scheduling follow-up appointments and phone calls and working with community organizations are traditional aspects of postacute services. Newer strategies involve using telehealth services to reach patients, as is the case with H4.

The objective of the telehealth service is to provide full-service hospital care to patients while the patients are at home. Ahmad et al. (2013) stated the use of telehealth programs as possible strategies to reduce readmissions. The goals of the program are to improve patient outcomes and provider satisfaction, increase outpatient utilization while decreasing inpatient utilization, and decrease admissions and emergency department visits. Participants from H4 provided supporting documentation and organizational artifacts on this program, which does not replace traditional services but rather enhances and supplements current initiatives.

Participants at H4 are utilizing new technologies and web-services to reach patients who are at-risk for readmission. They have implemented a new initiative by providing patients an iPad and other medical equipment at no cost to the patient. Through the equipment, the patients can connect with a physician remotely. The physician can then interpret the information from the various pieces of medical equipment and provide

feedback to the patients. Additionally, physicians can discuss any changes to their

treatment plan. Hospital leaders can aid their team members providing primary care in the

outpatient setting by engaging in new technologies and telehealth services to reach

patients where they reside.

Eligible patients for participation in the telehealth program must meet certain

criteria. The most common conditions for enrollment include congestive heart failure,

pneumonia, chronic obstructive pulmonary disorder, and other chronic health problems.

The participants at H4 provided organizational documentation on the program but

requested the documents not be included.

Immersion projects. The third core theme of the major theme of hospital

operations and patient interactions is immersion projects. Hospital team members in

Southwest Missouri can participate in immersion projects through either the Missouri

Hospital Association or the American Hospital Association. Currently, two participants

from separate facilities are utilizing the immersion project on readmissions through the

Health Improvement Innovation Network to help their team members reduce

readmissions. The staff conducting the immersion projects helps hospital team members

employ strategies like care coordination, development of data solutions and analytics, and

the creation of community and postacute partnerships (Missouri Hospital Association,

2018). Participants of the immersion projects utilize the some of the same strategies the

as hospital leaders in this study.

Monitoring rates, benchmarking, and electronic flagging. The fourth core

theme of the major theme of hospital operations and patient interactions is monitoring

rates, benchmarking, and electronic flagging. Hospital leaders identified monitoring rates as a core strategy in understanding the patient populations that need more resources and support. Ahmad et al. (2013) agreed with the use of monitoring readmission rates as a strategy. Of the participants in this study, 86% identified monitoring readmission rates as a core strategy.

The rates hospital leaders monitor vary by organization. Additionally, the source of the readmission rate is critical for team members to understand because the underlying assumptions of readmission rates can differ. Some participants use raw observed readmission rates, whereas others utilize risk-adjusted rates through either a commercial vendor or the Hospital Industry Data Institute. Regardless of the rates hospital leaders use, they need to understand the underlying assumptions and execution criteria of the readmission rates to enact strategies to reduce readmissions.

Participants at H4 stated they monitor their emergency department utilization rates as a proxy for readmission rates. Hospital leaders at this facility track emergency department rates because the emergency department is a primary source of admission to the inpatient setting. H4P2 stated

> We look at Emergency Department (ED) visits per 1,000. Of course, some
> patients need to be admitted, but we want to look at patients in the ED we could
> help prevent from showing up in the ED in the first place. If we can control the
> ED, we can help manage our readmissions rates.

Hospital leaders are attempting to identify preventable emergency department visits to reduce hospital readmissions.

After hospital leaders identify the readmission rates, or proxy rates, they intend to monitor, they need to identify standard benchmarks. Benchmarking against a standard rate is a common practice in healthcare. However, like readmission rates, benchmarks vary by source. Using the benchmark for an observed rate will not suffice as a benchmark for a risk-adjusted rate, which is why hospital leaders need to ensure they are comparing the correct benchmarks. If they do not, they will not use their readmission rates in a meaningful manner.

Flagging at-risk patients via their electronic health records (EHR) is another strategy hospital leaders use. Ahmad et al. (2013) stated the use of EHRs for patient tracking and flagging is an appropriate strategy for understanding readmissions. Of the participants in this study, 40% identified the use patient flagging in their EHR, but how they use the flags varies by hospital. Some participants utilize a risk stratification score in their EHR that accounts for a patient's length of stay, acuity, comorbidities, and recent emergency department visits. Other participants use the EHR to flag patients in the emergency department who would count as a readmission if the clinicians admit them. Hospital leaders use their EHRs as a strategy to identify at-risk patients for readmission.

Major Theme 3: Leadership and Mission

The leadership and mission of individual hospitals are broad themes from the interviews. These organizational strategies to reduce hospital readmissions are holistic and involve hospital leaders setting a strategic direction for their teams. The core theme in leadership and mission are setting the mission and vision, enabling team members and reducing barriers, and taking a local approach.

Setting the mission and vision. The first core theme of the major theme of leadership and mission is setting the mission and vision. The mission and vision of a hospital is an important factor when attempting to reduce readmissions. Setting the mission and vision of an organization is a common function of leadership (Jalal, 2017).

Two-thirds of the participants in this study recognized the importance of setting the overarching strategy for their team members. H4P1 stated "Our leadership team is incredible and care very much about the people of the community. This stems from our mission and culture. Leaders need to set the mission of the organization." Hospital leaders may not be the front-line team members working with patients, but they do need to set the organizational directive to reduce readmissions.

Enabling team members and reducing barriers. The second core theme of the major theme of leadership and mission is enabling team members and reducing barriers. Participants identified enabling organizational team members and reducing barriers as a critical role of leaders in reducing readmissions. Weberg (2012) argued the role of leadership in a complex environment is to reduce organizational barriers to allow the front-line professionals to produce innovative solutions. Addressing the role of leadership in reducing readmissions was a specific question in the interview protocol. H1P1 stated

> The biggest role of a leader is to ensure that there is a coordinated effort focused on readmissions and that everyone is working together. Another aspect is to eliminate any barriers for team members during the process. Leaders need to make sure team members have the resources they need and help reduce barriers to their effectiveness.

Additionally, H2P2 stated "I really do think that the people who know what works best are the people who do it." Two-thirds of the participants acknowledge the role of leaders in enabling team members and reducing organizational barriers.

Taking a local approach. The third core theme of the major theme of leadership and mission is taking a local approach. Participants acknowledged hospital leaders need to take a local approach to developing solutions to readmissions despite the national nature of the issue. Although the participants in the study are at facilities in Southwest Missouri, they serve different communities. Of the five facilities in the study, only two are in metropolitan statistical areas, whereas the remaining three are in rural areas. H2P4 stated "there is not a one-size-fits-all approach to this. It is a local thing. You can't say what Missouri should do to reduce readmissions. It needs to be organized by communities …." The participants acknowledged the strategies they use to reduce readmissions in their individual communities might differ because the needs of each community are unique.

Major Theme 4: Barriers to Reducing Readmissions

Despite discussing possible strategies to reducing readmissions, hospital leaders acknowledged the need to understand the barriers to implementing strategies to be successful. Although these barriers are primarily outside of their control, the participants acknowledged hospital leaders need to understand how the barriers may affect their strategies. The core themes are social factors, patient compliance, financial constraints, and access to care.

Social factors. The first core theme of barriers to reducing readmissions is social factors. Of the participants in this study, 80% identified social factors as a major factor influencing patient readmissions. McCarthy et al. (2013) and Jha (2015) agreed social factors affect the likelihood of a patient being readmitted. However, the current CMS model for calculating readmissions does not include social factors (Nagasako et al., 2014). Despite CMS not controlling for social factors when levying financial penalties, hospital leaders need to account for these factors when strategizing how to reduce readmissions, even though these issues are outside of their control.

The social factors affecting hospital readmissions the participants cited are poverty, homelessness, dietary needs, education, drug abuse, and transportation. Snyderman et al. (2014) stated issues like poverty, affordability of medication, and housing affect readmissions. Although not a comprehensive list, social factors influence the health of patient's post-discharge.

Poverty is a critical issue for patients after the acute care setting because they may not be able to afford stable housing or their medications. Gu et al. (2014) discovered dual-eligible patients are more likely to be readmitted than non-dual-eligible patients. H2P4 stated

One important aspect is that of socioeconomics in the healing process. Communities that have the resources to provide to their patients have better outcomes. Things like access to the right nutrition, the right caregivers, going to a place that has proper housing, and access to medication. Some do not have fruits

and vegetables in their diet because is it easier to go to the gas station and get

cheap, filling food pack with preservatives.

The participants acknowledged the need to address patients' socioeconomic status but

also observed their influence in controlling for those issues is limited. H4P1 stated

There is only so much we can control at the organizational level. There are so

many societal factors that come into play like determinates of health, lifestyle

choices, and access to primary care. A lot of patients do not have the right

income, resources, or even a permanent home.

Irrespective of the role of social factors in healthcare, hospital leaders need to address the

needs of their patients. Hospital leaders identified strategies to address these barriers, like

developing community partnerships and creating more resources to connect with patients

where they live.

Patient compliance. The second core theme of barriers to reducing readmissions

is patient compliance. Of the participants is this study, 40% cited patient compliance–or,

more accurately, patient noncompliance–as a barrier to reducing readmissions. Hospital

leaders stated patients who do not adhere to their discharge instructions, whether it is

dietary restrictions or attending their follow-up appointments, are generally readmitted

more than patients who do comply.

Some patients may not comply with the discharge instructions because of social

factors like poverty or transportation. Other patients make life choices to not comply as

H3P2 stated "unfortunately, personal decision making, such as a patient's decision to use

drugs, is a big barrier." Hospital leaders can help reduce the issue of patient compliance by increasing patient education and developing community partnerships.

Financial constraints. The third core theme of barriers to reducing readmissions is financial constraints. One-third of the participants identified financials constraints as a factor affecting strategies for reducing hospital readmissions. McCarthy et al. (2013) stated traditional business models cannot be applied to hospital readmissions. In the current fee-for-service reimbursement model, clinicians have an incentive to over-treat their patients, which increases costs but may not increase the quality of care (Cox et al., 2016). H4P2 stated "the biggest challenge is that we have a business model that does not work." Despite the transition to a value-based reimbursement model, hospital leaders need to understand how financial considerations affect readmissions.

The participants specifically cited financial constraints as a barrier to reducing readmissions. If hospital leaders reduce readmissions, they need to spread their fixed costs over fewer patient encounters (McCarty et al., 2013). H2P4 stated "well, we're still a fee-for-service world, so if I get excellent and readmissions are down to 1%, I've taken money out of my own pocket." Hospital leaders can address the financial implications by developing networks of care in other healthcare domains to compensate for potential lost revenue. H4P2 stated

> We all know we don't want readmissions. So, leaders need to set a strong focus
> on outpatient primary care. This is difficult because on the surface, primary care
> actually loses money. So, we need to build a strong network of services so we can

be successful in other areas of compensation whether that is shared savings or

quality incentives.

Hospital leaders need to be aware of the financial constraints of readmissions and

understand the effect their strategies for reducing readmissions have on their finances.

Balancing financial reimbursement and potential penalties is a paradox, like the

business paradox of CAS. Geer Fraizer (2014) stated the business paradox is the

organizational need for businesses to have both new solutions and stability, which are

contradictory to each other. Hospital leaders need to balance the reduction of

readmissions with the organizational imperative to maintain financial stability. If hospital

leaders are unable to maintain the financial viability of the hospital, they risk limiting

organizational resources available for providing services their communities.

Hospital leaders can manage the financial paradox regarding hospital

readmissions by enabling front-line team members to develop solutions. Organizational

leaders can use front-line team members as one of the best resources for new ideas

because they work closest to the problem (Tonges et al., 2016). H2P2 stated "I really do

think that the people who know what works best are the people who do it." By including

front-line team members on possible solutions, hospital leaders can navigate the financial

paradox of hospital readmissions.

Access to care. The forth core theme of barriers to reducing readmissions is

access to care. Of the participants in this study, seven identified access to care as a factor

affecting hospital readmissions. Patients, especially those in rural areas, may not have a

primary care physician nearby. Additionally, a workforce shortage in rural areas

exacerbates areas, which already have few clinicians. H2P4 stated "the workforce shortage is starting to creep up on us in rural America. It's at a dangerous level." Providing patient access to a primary care physician is critical element in preventing readmissions.

Another aspect of access to care is access to behavioral health services. Amhad et al. (2013) and Snyderman et al. (2014) both cited mental health issues and access to mental health services as contributing factors towards readmissions. H2P4 stated

Another aspect is the psychological component of healthcare. The primary diagnosis may be CHF, but the secondary is depression because I'm home alone and I have CHF. Just the words CHF can induce anxiety and depression. So what are we doing about mental health?

Additionally, H4P1 stated "we have a lot of work on behavioral health, which is an ongoing community need. We just do not have enough behavioral health beds." Hospital leaders identified mental health issues and access to mental health services as a barrier to reducing readmissions.

Applications to Professional Practice

Hospital leaders who implement organizational strategies to reduce readmissions impact organizational practices. Hospital readmissions impact the finances and the reputation of the hospital (Winborn et al., 2014). Hospital leaders need to ensure strategies for reducing readmissions align with the mission and vision of the hospital. Additionally, hospital leaders can use the results of this study to develop strategic partnerships with community organizations.

Developing community partners is a core theme of the study. McCarthy et al. (2013) stated developing community relationship is a vital aspect of controlling hospital readmissions. Hospital leaders need to allocate limited resources and understand external factors affecting patients' health. Hospital team members are unable to support some external factors, like societal issues including poverty and permanent shelter. By developing community partnerships with other organizations, hospital leaders can dedicate resources, both human and financial, towards activities and initiatives that can have the greatest impact in reducing readmissions.

Utilizing follow-up and postacute services are strategies hospital leaders can use from this study. Vinall (2013) supported the use of outpatient follow-up services as a strategy to reduce readmissions. Engaging patients after discharge is not a new strategy but is consistent among hospitals with lower than average readmission rates, like the hospitals in this study. Additionally, providing more postacute services may increase the communication among providers. McCarthy et al. (2013) stated communication among providers is imperative as patients transition through levels of care. Implementing follow-up and postacute services may help hospital leaders engage and coordinate care for their patients beyond the inpatient environment.

Other strategies relating to business practice include the development and use of multiple disciplinary rounding teams. Ahmad et al. (2013) and McCarthy et al. (2013) identified multiple disciplinary rounding teams as strategies for reducing readmissions. Participants of the study stated multiple disciplinary rounding teams can increase communication among team members. Additionally, hospital clinicians can educate

patients on their conditions and relay pertinent information to postacute caretakers. Hospital leaders can use the findings of the study to implement strategies other hospital leaders use to reduce readmissions.

Implications for Social Change

Hospital leaders may use this study to contribute to the improvement of services their team members provide to patients, which may improve the overall health of the communities they serve. Identifying and implementing strategies to reduce readmissions may enable hospital team members to focus on areas of healthcare beyond the clinical conditions of the patient. Hospital leaders who set the vison of reducing readmissions can position their organizations to be local champions of population health while empowering patients to be self-reliant.

By reducing hospital readmissions, hospital leaders can reduce the cost burden on the national healthcare system. Boozary et al. (2015) stated potential avoidable readmissions cost Medicare about $17 billion. By reducing readmissions and the cost strain on the federal government, society can benefit from a more efficient operation of the government and limited resources.

Recommendations for Action

Hospital leaders may consider assessing their strategies to reduce readmissions with the strategies of this study to fit their patient population and community. Not all strategies in the study are appropriate for all hospital team members. However, hospital leaders who lead facilities with higher than average readmission rates may consider implementing the strategies of this study. Hospital leaders implementing new strategies to

reduce readmissions should work with other hospital leaders and front-line team members in the deployment of new initiatives. Hospital leaders should also evaluate the financial constraints of readmissions and apply resources to strategies most likely to impact readmissions.

The results of the study are important to hospital leaders like CEOs, senior leadership, managers, and front-line team members. Implementing strategies to reduce readmissions is a collaborative effort requiring the input and support of all organizational levels and departments. Furthermore, all organizational stakeholders can benefit from the study because hospital readmissions include many social factors. I will disseminate the findings of study to participants by summarizing the results and sending via email. Additionally, I will disseminate the findings via scholarly journals, business journals, and conferences.

Recommendations for Further Research

Other researchers and scholars can expand on the results of this study with further research. One limitation of the study is the time necessary to implement strategies to reduce readmissions and track effectiveness. Hospital leaders may not yield the results of organizational strategies to reduce readmissions for several months after initial implementation. Leaders need to track readmissions rates over time and evaluate their effectiveness in their community. Further research may include reporting on new strategies and technologies not yet available.

The participants of this study included hospital leaders at facilities in Southwest Missouri. Missouri is not a Medicaid expansion state, and hospital leaders in other states

may have different strategies because of more resources. Additionally, participants recommended hospital leaders take a local approach to reducing readmissions. Although two of the hospitals were in metropolitan statistical areas, none were in major metropolitan areas like St. Louis and Kansas City. Further research could be on readmissions reduction strategies in Medicaid expansion states and major metropolitan areas.

Reflections

The journey through the doctoral process has been one of commitment and personal growth. The use of CAS was appropriate for this study as it aligned with the national issue of hospital readmissions and the numerous stakeholders. Additionally, the results of the interviews and organizational artifacts confirmed healthcare as a CAS. However, I do not believe the use of CAS as the conceptual framework overly influenced or biased my opinion of the situation. The participants described a complex landscape with no single answer to the research question. Many participants discussed numerous facets and elements affecting hospital readmissions outside of their control.

As I began the study, I did have preconceived notions on the issue of hospital readmissions. My employer, the Hospital Industry Data Institute and the Missouri Hospital Association, has many team members working with facilities on hospital readmissions. However, I was intrigued at the hospital leaders' emphasis on population health. Moreover, I was impressed some hospital leaders were attempting to solve the social issues, which they deemed to be outside of their control.

I was also surprised the hospital leaders were willing to discuss the role of hospital finances and readmissions because of the ensuing paradox with the transition to value-based care. The hospital leaders recognized that if they excel in reducing readmissions they may reduce overall reimbursement, despite the financial penalties of the readmissions. I believe that to truly transition to a value-based healthcare system, the federal government needs to implement financial strategies to force hospital leaders to put quality first. Until hospital leaders have financial incentives to transition to a full value-based system, the transition will never be complete. The financial implications for not switching to value-based care should be severe enough to where the chief financial officer requests organizational team members to develop value-based initiatives.

Conclusion

Hospital leaders continue to grapple with the complex issue of hospital readmissions. Having no singular solution to the national issue, hospital leaders need to understand the factors affecting the populations they serve and tailor their strategies accordingly. The major themes of this study are population health, hospital operations and patient interactions, leadership and mission, and barriers to reducing readmissions. In each major theme are core themes, or strategies, hospital leaders in Southwest Missouri are using to reduce readmissions. Many of the core themes overlap among the different overarching themes because of the interconnectedness of healthcare, which is indicative of CAS.

Understanding the barriers to reducing readmissions is of equal importance as identifying strategies. The participants of the study identified several barriers they

encountered, and continue to encounter, when implementing strategies to reduce

readmissions. The challenges are social factors, patient compliance, financial constraints,

and access to care. Hospital leaders who adapt strategies to account for these barriers

understand the holistic nature of the current healthcare environment, which is population

health. To be successful in reducing hospital readmissions, hospital leaders must

understand the needs of their communities and the transitioning landscape to value-based

care.

References

Ahmad, F. S., Metlay, J. P., Barg, F. K., Henderson, R. R., & Werner, R. M. (2013). Identifying hospital organizational strategies to reduce readmissions. *American Journal of Medical Quality*, *28*, 278-285. doi:10.1177/1062860612464999

Ahmed, S. P., & Ahmed, M. T. Z. (2014). Qualitative research: A decisive element to epistemological & ontological discourse. *Journal of Studies in Social Sciences, 8,* 298-313. Retrieved from http://www.infinitypress.info/index.php/jsss/index

Allen, D., Braithwaite, J., Sandall, J., & Waring, J. (2016). Towards a sociology of healthcare safety and quality. *Sociology of Health & Illness*, *38*, 181-197. doi:10.1111/1467-9566.12390

Aloysius, O. I. (2013). Perception of empowerment among international students at the University Putra Malaysia. *International Journal of Business and Management, 8*(23), 93-101. doi:10.5539/ijbm.v8n23p93

Amin, M. a., Khan, A. M., & Tatlah, I. A. (2013). What should a leader do? An investigation of the leader's role to enhance the faculty job satisfaction. *Journal of Educational Research*, *16*, 89-106. Retrieved from http://www.tandfonline.com/toc/vjer20/current

Anderson, R. C., Guerreiro, M., & Smith, J. (2016). Are all biases bad? Collaborative grounded theory in developmental evaluation of education policy. *Journal of Multidisciplinary Evaluation*, *12*, 44-57. Retrieved from http://journals.sfu.ca/jmde/index.php/jmde_1

Anney, V. (2014). Ensuring the quality of the findings of qualitative research: Looking at trustworthiness criteria. *Journal of Emerging Trends in Educational Research and Policy Studies, 5*, 272-281. Retrieved from http://jeteraps.scholarlinkresearch.com

Arena, M. J., & Uhl-Bien, M. (2016). Complexity leadership theory: Shifting from human capital to social capital. *People & Strategy*, *39*(2), 22–27. Retrieved from http://www.hrps.org/?page=peoplestrategy

Ashatu, H. (2015). The use of triangulation in social sciences research: Can qualitative and quantitative methods be combined? *Journal of Comparative Social Work*, *4*(1), 1-12. Retrieved from http://journal.uia.no/index.php/JCSW

Bailey, L. F. (2014). The origin and success of qualitative research. *International Journal of Market Research*, *56*, 167-184. doi:10.2501/IJMR-2014-013

Baillie, L. (2015). Promoting and evaluating scientific rigour in qualitative research. *Nursing Standard*, *29*(46), 36-42. doi:10.7748/ns.29.46.36.e8830

Barasa, E. W., Molyneux, S., English, M., & Cleary, S. (2017). Hospitals as complex adaptive systems: A case study of factors influencing priority setting practices at the hospital level in Kenya. *Social Science & Medicine*, *174*, 104-113. doi:10.1016/j.socscimed.2016.12.026

Barbro, L., Kristian, L., Judith, B., Roswith, R., Tuula, S., Laura, S., & ... TEDDY Study, G. (2016). Participant experiences in the environmental determinants of diabetes in the young study: Common reasons for withdrawing. *Journal of Diabetes Research*, *2016*, 1-13. doi:10.1155/2016/2720650

Benoot, C., Hannes, K., & Bilsen, J. (2016). The use of purposeful sampling in a

qualitative evidence synthesis: A worked example on sexual adjustment to a

cancer trajectory. *BMC Medical Research Methodology*, *16*, 21-32.

doi:10.1186/s12874-016-0114-6

Beskow, L. M., Check, D. K., & Ammarell, N. (2014). Research participants'

understanding of and reactions to certificates of confidentiality. *AJOB Primary

Research, 5*(1), 12-22. doi:10.1080/21507716.2013.813596

Best, J. (2014). An integral analysis of complexity leadership. *Integral Leadership

Review*, *14*, 254-270. Retrieved from http://integralleadershipreview.com

Birt, L. L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking.

Qualitative Health Research, *26*, 1802-1811. doi:10.1177/1049732316654870

Bonet, E. (2014). Exploring the boundaries of rhetoric. *Journal of Organizational

Change*, *27*, 793-806. doi:10.1108/JOCM-09-2014-0175

Boozary, A. S., Manchin, J., & Wicker R. F. (2015). The Medicare hospital readmissions

reduction program: Time for reform. *Journal of the American Medical

Association, 314*, 347-348. doi:10.1001/jama.2015.6507

Bosko, T., & Gulotta, B. (2016). Improving care across the continuum. *Journal of

Healthcare Management*, *61*, 90-93. Retrieved from

https://www.ache.org/pubs/jhm/jhm_index.cfm

Bowden, C., & Galindo-Gonzalez, S. (2015). Interviewing when you're not face-to-face:

The use of email interviews in a phenomenological study. *International Journal

of Doctoral Studies*, *10*, 79-92. Retrieved from http://www.informingscience.org/

Braathen, P. (2016). Paradox in organizations seen as social complex systems. *Emergence: Complexity and Organization*. *18*, 1-15. doi:10.emerg/10.17357.e5b6cf66b725a23565b6c822a7d2670b

Bradbury-Jones, C., Taylor, J., & Herber, O. (2014). Vignette development and administration: A framework for protecting research participants. *International Journal Of Social Research Methodology*, *17*, 427-440. doi:10.1080/13645579.2012.750833

Brainard, J., & Hunter, P. R. (2016). Do complexity-informed health interventions work? A scoping review. *Implementation Science*, *11*, 127-138. doi:10.1186/s13012-016-0492-5

Brett, J., Staniszewska, S., Mockford, C., Herron-Marx, S., Hughes, J., Tysall, C., & Suleman, R. (2014). A systematic review of the impact of patient and public involvement on service users, researchers and communities. *Patient-Patient-Centered Outcomes Research, 7*, 387-395. doi:10.1007/s40271-014-0065-0

Bristowe, K., Selman, L., & Murtagh, F. E. (2015). Qualitative research methods in renal medicine: An introduction. *Nephrology Dialysis Transplantation, 30*, 1424-1431. doi:10.1093/ndt/gfu410

Brown, J. B., Ryan, B. L., Thorpe, C., Markle, E. K., Hutchison, B., & Glazier, R. H. (2015). Measuring teamwork in primary care: Triangulation of qualitative and quantitative data. *Families, Systems, & Health*, *33*, 193-202. doi:10.1037/fsh0000109

Brown, N., Lui, C., Robinson, P., & Boyle, F. (2015). Supportive care needs and

preferences of lung cancer patients: A semi-structured qualitative interview study. *Supportive Care in Cancer*, *23*, 1533-1539. doi:10.1007/s00520-014-2508-5

Cabrilo, S., Grubic Nesic, L., & Mitrovic, S. (2014). Study on human capital gaps for effective innovation strategies in the knowledge era. *Journal of Intellectual Capital, 15*, 411-429. doi:10.1108/jic-05-2014-0058

Cairney, P., & St Denny, E. (2015). What is qualitative research (Bloomsbury)? *International Journal of Social Research Methodology, 18*, 117-125. doi:10.1080/13645579.2014.957434

Caretta, M. A. (2016). Member checking: A feminist participatory analysis of the use of preliminary results pamphlets in cross-cultural, cross-language research. *Qualitative Research*, *16*, 305-318. doi:10.1177/1468794115606495

Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., & Neville, A. J. (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum*, *41*, 545-547. doi:10.1188/14.ONF.545-547

Caruth, G. D. (2013). Demystifying mixed methods research design: A review of the literature. *Mevlana International Journal of Education, 3*, 112-122. doi:10.13054/mije.13.35.3.2

Castillo-Montoya, M. (2016). Preparing for interview research: The interview protocol refinement framework. *Qualitative Report*, *21*, 811-831. Retrieved from http://tqr.nova.edu

Chan, N. N., & Walker, C. (2015). An exploration of students' lived experiences of using smartphones in diverse learning contexts using a hermeneutic phenomenological

approach. *Computers & Education, 82,* 96-106.

doi:10.1016/j.compedu.2014.11.001

Chan, Z. C., Fung, Y. L., & Chien, W. T. (2013). Bracketing in phenomenology: Only

undertaken in the data collection and analysis process? *Qualitative Report,*

18(30), 1-9. Retrieved from http://tqr.nova.edu

Chandler, J., Rycroft-Malone, J., Hawkes, C., & Noyes, J. (2016). Application of

simplified complexity theory concepts for healthcare social systems to explain the

implementation of evidence into practice. *Journal of Advanced Nursing*, *72*, 461–

480. doi:10.1111/jan.12815

Chen, H. T. (2016). Interfacing theories of program with theories of evaluation for

advancing evaluation practice: Reductionism, systems thinking, and pragmatic

synthesis. *Evaluation and Program Planning*, *59*, 109–118.

doi:10.1016/j.evalprogplan.2016.05.012

Choi, S, L., Goh, C, F., Adam, M. B. H., & Tan, O. K. (2016). Transformation leadership

empowerment, and job satisfaction: The mediating role of employee

empowerment. *Human resources for Health*, *14*, 73-87. doi:10.1186/s12960-016-

0171-2

Christensen, A., Ekholm, O., Glümer, C., & Juel, K. (2013). Effect of survey mode on

response patterns: Comparison of face-to-face and self-administered modes in

health surveys. *European Journal of Public Health*, *24*, 327-332.

doi:10.1093/eurpub/ckt067

Cincotta, D. (2015). An ethnography: An inquiry into agency alignment meetings. *Journal of Business Studies, 7*(1), 95-106. Retrieved from http://jbsq.org/

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

Collins, C. S., & Cooper, J. E. (2014). Emotional intelligence and the qualitative researcher. *International Journal of Qualitative Methods, 13*, 88-103. Retrieved from http://ejournals.library.ualberta.ca/index.php/IJQM/index

Connelly, L. M. (2016). Trustworthiness in Qualitative Research. *MEDSURG Nursing*, *25*, 435-436. Retrieved from www.medsurgnursing.net/

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

Cox, J. C., Sadiraj, V., Schnier, K. E., & Sweeney, J. F. (2016). Incentivizing cost-effective reductions in hospital readmission rates. *Journal of Economic Behavior & Organization*, *131*, 24–35. doi:10.1016/j.jebo.2015.03.014

Crocker, T., Besterman-Dahan, K., Himmelgreen, D., Castañeda, H., Gwede, C. K., & Kumar, N. (2014). Use of semi-structured interviews to explore competing demands in a prostate cancer prevention intervention clinical trial (PCPICT). *Qualitative Report, 19*, 1-16. Retrieved from http://tqr.nova.edu/

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

Davis, H. (2015). Social complexity theory for sense seeking. *Emergence: Complexity & Organization*, *17*, 1-14. doi:10.17357.f1a65666920193baad6eb91f442349df

De Massis, A., & Kotlar, J. (2014). The case study method in family business research: Guidelines for qualitative scholarship. *Journal of Family Business Strategy, 5*(1), 15-29. doi:10.1016/j.jfbs.2014.01.007

DeAngulo, J., M., & Losada, L., S. (2015). Health Paradigm Shifts in the 20th Century. *Christian Journal for Global Health, 2*, 49-58.doi:10.15566/cjgh.v2i1.37

Derobertmasure, A., & Robertson, J. E. (2014). Data analysis in the context of teacher training: Code sequence analysis using QDA miner (R). *Quality and Quantity, 48,* 2255-2276. doi:10.1007/s11135-013-9890-9

Dolan, T. E. (2015). Does the principle of informed consent apply to futures studies research? *Futures*, *71*, 114-121. doi:10.1016/j.futures.2014.09.002

Doody, O., & Noonan, M. (2013) Preparing and conducting interviews to collect data. *Nurse Researcher, 20*, 28-32. Retrieved from www.nurseresearcher.co.uk

Dowden, A. R., Gunby, J. D., Warren, J. M., & Boston, Q. (2014). A phenomenological analysis of invisibility among African-American males: Implications for clinical practice and client retention. *Professional Counsellor, 4*(1), 58-70. doi:10.15241/ard.4.1.58

Duan, N., Bhaumik, D., Palinkas, L., & Hoagwood, K. (2015). Optimal design and purposeful sampling: Complementary methodologies for implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, *42*, 524-532. doi:10.1007/s10488-014-0596-7

Edward, K., & Welch, T. (2011). The extension of Colaizzi's method of

    phenomenological enquiry. *Contemporary Nurse: A Journal for the Australian*

    Nursing Profession, *39*, 163-171. doi:10.5172/conu.2011.163

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014).

    Qualitative content analysis. *Sage Open, 4*(1), 1-10.

    doi:10.1177/2158244014522633

Fetters, M. D. (2016). "Haven't we always been doing mixed methods research?"

    Lessons learned from the development of the horseless carriage. *Journal of Mixed*

    Methods Research, 10(1), 3-11. doi:10.1177/1558689815620883

Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative

    research. *Qualitative Report, 20*, 1408-1416. Retrieved from http://tqr.nova.edu/

Gates, E. F. (2016). Making sense of the emerging conversation in evaluation about

    systems thinking and complexity science. *Evaluation and Program Planning*, *59*,

    62–73. doi:10.1016/j.evalprogplan.2016.08.004

Geer-Frazier, B. (2014). Complexity leadership generates innovation, learning, and

    adaptation for the organization. *Emergence: Complexity and Organizations*, *16*,

    105-116. Retrieved from http://journal.emergentpublications.com/

Ghamdi, H. A., Alshammari, R., & Razzak, M. I. (2016). An ontology-based system to

    predict hospital readmission within 30 days. *International Journal of Healthcare*

    Management, *9*, 236–244. doi:10.1080/20479700.2016.1139768

Gill, M. J. (2014). The possibilities of phenomenology for organizational research.

    Organizational Research Methods, 17, 118-137. doi:10.1177/1094428113518348

Goswami, I.. (2014). Critical observation on methodologies of select doctoral research studies. *Space and Culture, India*, *2*, *47-60.* doi:10.2139/ssrn.2541251

Gu, Q., Koenig, L., Faerberg, J., Steinberg, C. R., Vaz, C., & Wheatley, M. P. (2014). The Medicare hospital readmissions reduction program: Potential unintended consequences for hospitals serving vulnerable populations. *Health Services Research, 49*, 818-837. doi:10.1111/1475-6773.12150

Hadidi, N., Lindquist, R., Treat-Jacobson, D., & Swanson, P. (2013). Participant withdrawal: Challenges and practical solutions for recruitment and retention in clinical trials. *Creative Nursing, 19*, 37-41. doi:10.1891/1078-4535.19.1.37

Haley, D. R., Zhao, M., & Spaulding, A. (2016). Hospital value-based purchasing and 30-day readmissions: Are hospitals ready? *Nursing Economics*, *34*, 110-116. Retrieved from www.nursingeconomics.net/

Hamilton, A. L., Coldwell-Neilson, J., & Craig, A. (2014). Development of an information management knowledge transfer framework for evidence-based occupational therapy. *The Journal of Information and Knowledge Management Systems*, *44*, 59-93. doi:10.1108/VINE-12-2012-0051

Hamzaee, R. G., & Baber, J. (2014). Ethics and market economic system: A general review and a survey. *International Journal of Applied Management and Technology*, *13*(1), 1-32. doi:10.5590/IJAMT.2014.13.1.01

Hockenberry, J. M., & Becker, E. R. (2016). How do hospital nurse staffing strategies affect patient satisfaction? *ILR Review*, *69*, 890-910. doi:10.1177/0019793916642760

Hoolachan, J. E. (2016). Ethnography and homelessness research. *International Journal of Housing Policy*, *16*(1), 31-49. doi:10.1080/14616718.2015.1076625

Hussain, I., Chandio, J. H., & Khan Sindher, R. H. (2013). A study on attitude of university academia towards the use of open educational resources in higher education. *Pakistan Journal of Commerce & Social Sciences*, *7*, 367-380. Retrieved from http://www.jespk.net

Hussein, A. (2015). The use of triangulation in social sciences research: Can qualitative and quantitative methods be combined?. *Journal of Comparative Social Work, 4*(1), 1-12. Retrieved from journal.uia.no/

Ioannidis, J. P., Greenland, S., Hlatky, M. A., Khoury, M. J., Macleod, M. R., Moher, D., . . . Tibshirani, R. (2014). Increasing value and reducing waste in research design, conduct, and analysis. *Lancet, 383,* 166-175. doi:10.1016/S0140-6736(13)62227-8

Jagadish, H. V., Gehrke, J., Labrinidis, A., Papakonstantinou, Y., Patel, J. M., Ramakrishnan, R., & Shahabi, C. (2014). Big data and its technical challenges. *Communications of the ACM, 57*(7), 86-94. doi:10.1145/2611567

Jalal, A. (2017). Impacts of organizaitonal culture on leadership's decision-making. *Journal of Advances in Management Sciences & Information Systems*, *3*, 1-8. doi:10.6000/2371-1647.2017.03.01

Jerolmack, C., & Khan, S. (2014). Talk is cheap ethnography and the attitudinal fallacy. *Sociological Methods & Research, 43*, 178-209. doi:10.1177/0049124114523396

Jha, A. K. (2015). Seeking rational approaches to fixing hospital readmissions. *Journal of*

the American Medical Association, *314*, 1681–1682.
doi:10.1001/jama.2015.13254

Jha, A. K. (2017). Value-based purchasing: Time for reboot or time to move on? *Journal of the American Medical Association*, *317*, 1107-1108.
doi:10.1001/jama.2017.1170

Jotterand, F., Amodio, A., & Elger, B. S. (2016). Patient education as empowerment and self-rebiasing. *Medicine, Health Care, And Philosophy*, *19*, 553-561.
doi:10.1007/s11019-016-9702-9

Kavanoz, K. (2017). An explanatory mixed methods study on pre-service language teachers' communication apprehension towards their instructors. *International Journal of Languages' Education and Teaching*, *5*, 631-650.
doi:10.18298/ijlet.1721

Kanta, L., & Zechman, E. (2014). Complex adaptive systems framework to assess supply-side and demand-side management for urban water resources. *Journal of Water Resources Planning and Management*, *140*(1), 75-85.
doi:10.1061/(ASCE)WR.1943-5452.0000301

Kirsch, J. L., Kothari, S. N., Ausloos, J. M., Gundrum, J. D., & Kallies, K. J. (2015). Reasons for 30-day postoperative readmissions for Medicare patients at a community-based teaching hospital. *American Surgeon*, *81*, 381-386. Retrieved from http://sesc.org/american-surgeon-journal/subscribe

Klang, D., Wallnöfer, M., & Hacklin, F. (2014). The business model paradox: A systematic review and exploration of antecedents. *International Journal of Management Reviews*, *16*, 454-478. doi:10.1111/ijmr.12030

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

Körner, M., Wirtz, M. A., Bengel, J., & Göritz, A. S. (2015). Relationship of organizational culture, teamwork and job satisfaction in interprofessional teams. *BMC Health Services Research*, *15*, 243-255. doi:10.1186/s12913-015-0888-y

Kral, M. J. (2014). The relational motif in participatory qualitative research. *Qualitative Inquiry, 20*, 144-150. doi:10.1177/1077800413510871

Lanham, H. J., Leykum, L. K., Taylor, B. S., McCannon, C. J., Lindberg, C., & Lester, R. T. (2013). How complexity science can inform scale-up and spread in health care: Understanding the role of self-organization in variation across local contexts. *Social Science & Medicine*, *93*, 194–202. doi:10.1016/j.socscimed.2012.05.040

Latney, C. R. (2016). High reliability organizations: The need for a paradigm shift in healthcare culture. *Reflections on Nursing Leadership*, *42*(2), 1-15. Retrieved from https://www.reflectionsonnursingleadership.org/

Leykum, L. K., Lanham, H. J., Pugh, J. A., Parchman, M., Anderson, R. A., Crabtree, B. F., . . . McDaniel, R. R. (2014). Manifestations and implications of uncertainty for improving healthcare systems: an analysis of observational and interventional

studies grounded in complexity science. *Implementation Science*, *9*, 165-178. doi:10.1186/s13012-014-0165-1

Lichtenstein, B. B., Uhl-Bien, M., Marion, R., Seers, A., Orton, J. D., & Schreiber, C. (2006). Complexity leadership theory: An interactive perspective on leading in complex adaptive systems. *Emergence: Complexity and Organization*, *8*, 2-12. Retrieved from http://journal.emergentpublications.com/

Lips-Wiersma, M., & Mills, A. J. (2014). Understanding the basic assumptions about human nature in workplace spirituality beyond the critical versus positive divide. *Journal of Management Inquiry, 23*, 148-161. doi:10.1177/1056492613501227

Lynn, P. (2014). Longer interviews may not affect subsequent survey participation propensity. *Public Opinion Quarterly, 78*, 500-509. doi:10.1093/poq/nfu015

Madill, A., & Sullivan, P. (2017). Mirrors, portraits, and member checking: Managing difficult moments of knowledge exchange in the social sciences. *Qualitative Psychology*, Advance online publication. doi:10.1037/qup0000089

Maramwidze-Merrison, E. (2016). Innovative methodologies in qualitative research: Social media window for accessing organisational elites for interviews. *Electronic Journal of Business Research Methods*, *14*, 157-167. Retrieved from http://www.ejbrm.com/main.html

Marshall, B., Cardon, P., Poddar, A., & Fontenot, R. (2013). Does sample size matter in qualitative research? A review of qualitative interviews in IS research. *Journal of Computer Information Systems, 54*(1), 11-22. doi:10.1080/08874417.2013.11645667

May, C. R., Johnson, M., & Finch, T. (2016). Implementation, context and complexity. *Implementation Science*, *11*, 141-152. doi:10.1186/s13012-016-0506-3

McCarthy, D., Johnson, M. B., & Audet, A. M. (2013). Recasting readmissions by placing the hospital role in community context. *Journal of the American Medical Association*, *309*, 351–352. doi:10.1001/jama.2013.1

McClintock, S., Mose, R., & Smith, L. F. (2014). Strategies for reducing the hospital readmission rates of heart failure patients. *Journal for Nurse Practitioners*, *10*(6), 430–433. doi:10.1016/j.nurpra.2014.04.005

McCusker, K., & Gunaydin, S. (2015). Research using qualitative, quantitative or mixed methods and choice based on the research. *Perfusion, 30*, 537-542. doi:10.1177/0267659114559116

McDonald, R. (2014). Leadership and leadership development in healthcare settings—a simplistic solution to complex problems? *International Journal of Health Policy and Management*, *3*, 227–229. doi:10.15171/ijhpm.2014.101

McHugh, M. D., Berez, J., & Small, D. S. (2013). Hospitals with higher nurse staffing had lower odds of readmissions penalties than hospitals with lower staffing. *Health Affairs*, *32*, 1740–1747. doi:10.1377/hlthaff.2013.0613

McWilliams, A., Roberge, J., Moore, C. G., Ashby, A., Rossman, W., Murphy, S., … Furney, S. (2016). Aiming to improve readmissions through InteGrated Hospital Transitions (AIRTIGHT): Study protocol for a randomized controlled trial. *Trials*, *17*, 603-612 doi:10.1186/s13063-016-1725-2

Mendes, M., Gomes, C., Marques-Quinteiro, P., Lind, P., & Curral, L. (2016). Promoting

    learning and innovation in organizations through complexity leadership theory.

    Team Performance Management, *22*, 301-309. doi:10.1108/TPM-02-2016-0004

Miller, J. S. (2015). How did you know that? Protecting privacy interests of research

    participants via certificate of confidentiality. *Columbia Science and Technology*

    Law Review, 90. Retrieved from www.stlr.org/

Miller, R. L. (2016). On messes, systems thinking, and evaluation: A response to Patton.

    American Journal of Evaluation, *37*, 266-269. doi:10.1177/1098214015626294

Missouri Hospital Association. (2017). *Find a Hospital*. Retrieved from

    www.focusonhospitals.com

Missouri Hospital Association. (2018). *Immersion Projects*. Retrieved from

    www.mhanet.com

Morse, J., & Coulehan, J. (2015). Maintaining confidentiality in qualitative publications.

    Qualitative Health Research, *25*, 151-152. doi:10.1177/1049732314563489

Nagasako, E. M., Reidhead, M., Waterman, B., & Dunagan, W. C. (2014). Adding

    socioeconomic data to hospital readmissions calculations may produce more

    useful results. *Health Affairs*, *33*, 786–791. doi:10.1377/hlthaff.2013.1148

Ngana, J. (2015). Management with a frame of mind for systemic thinking: A conceptual

    condition setting tool. *Systems Research and Behavioral Science*, *32*, 175–182.

    doi:10.1002/sres.2257

Nijs, D. E. L. W. (2015). Introduction: Coping with growing complexity in society.

    World Futures, *71*, 1-7. doi:10.1080/02604027.2015.1087223

Noohi, E., Peyrovi, H., Goghary, Z. I., & Kazemi, M. (2016). Perception of social

　　support among family caregivers of vegetative patients: A qualitative study.

　　Consciousness and Cognition, 41, 150-158. doi:10.1016/j.concog.2016.02.015

Nunlist, M. M., Uiterwyk, S., & Nicoletti, B. (2014). Gambling on the transition from

　　fee-for-service to value-based care. *Family Practice Management*, *21*(5), 6-7.

　　Retrieved from https://www.aafp.org/fpm/2014/0900/p6.html

Nweze, I. C., DiGiacomo, J. C., Shin, S. S., Gupta, C., Ramakrishnan, R., & Angus, L. D.

　　(2016). Demographic and socioeconomic factors influencing disparities in

　　prevalence of alcohol-related injury among underserved trauma patients in a

　　safety-net hospital. *Injury*, *47*, 2635-2641. doi:10.1016/j.injury.2016.10.020

Ogilvy, J. (2013). Systems theory, arrogant and humble. *World Futures*, *69*, 332–344.

　　doi:10.1080/02604027.2013.803371

Olin, A., Karlberg-Granlund, G., & Furu, E. M. (2016). Facilitating democratic

　　professional development: Exploring the double role of being an academic action

　　researcher. *Educational Action Research*, *24*, 424-441.

　　doi:10.1080/09650792.2016.1197141

Onwuegbuzie, A. J., & Byers, V. T. (2014). An exemplar for combining the collection,

　　analysis, and interpretations of verbal and nonverbal data in qualitative

　　research. *International Journal of Education*, *6*, 183-246.

　　doi:10.5296/ije.v6i1.4399

Ottolini, F. L., Buggio, L., Somigliana, E., & Vercellini, P. (2016). The complex interface between economy and healthcare: An introductory overview for clinicians. *European Journal of Internal Medicine*, *36*, 1-6. doi:10.1016/j.ejim.2016.07.030

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

Park, J., & Park, M. (2016). Qualitative versus quantitative research methods: Discovery or justification? *Journal of Marketing Thought, 3*, 1-7. doi:10.15577/jmt.2016.03.01.1

Parry, K., Mumford, M., Bower, I., & Watts, L. (2014). Qualitative and historiometric methods in leadership research: A review of the first 25 years of *The Leadership Quarterly*. *Leadership Quarterly*, *25*, 132-151. doi:10.1016/j.leaqua.2013.11.006

Pascoal, P. M., Narciso, I. B., & Pereira, N. M. (2014). What is sexual satisfaction? Thematic analysis of lay people's definitions. *Journal of Sex Research, 51*(1), 22-30. doi:10.1080/00224499.2013.815149

Patel, V. K., Manley, S. C., Hair, J. J., Ferrell, O. C., & Pieper, T. M. (2016). Is stakeholder orientation relevant for European firms? *European Management Journal*, *34*, 650-660. doi:10.1016/j.emj.2016.07.001

Peredaryenko, M. S., & Krauss, S. E. (2013). Calibrating the human instrument: Understanding the interviewing experience of novice qualitative researchers. *Qualitative Report*, *18*(85), 1-17. Retrieved from http://tqr.nova.edu

Ponte, B., Costas, J., Puche, J., de la Fuente, D., & Pino, R. (2016). Holism versus reductionism in supply chain management: An economic analysis. *Decision Support Systems*, *86*, 83-94. doi:10.1016/j.dss.2016.03.010

Poore, J. M. (2015). When culture and strategy collide. *Healthcare Executive*, *30*(4), 50-53. Retrieved from www.ache.org

Poteat, T., German, D., & Kerrigan, D. (2013). Managing uncertainty: A grounded theory of stigma in transgender health care encounters. *Social Science & Medicine, 84*, 22-29. doi:10.1016/j.socscimed.2013.02.019

Puig, V. I., Erwin, E. J., Evenson, T. L., & Beresford, M. (2015). "It's a two-way street": Examining how trust, diversity, and contradiction influence a sense of community. *Journal of Research in Childhood Education*, *29*, 187-201. doi:10.1080/02568543.2015.1009588

Qasem, A., Aji, A. M., & Rodgers, G. (2017). Characterizing data organization effects on heterogeneous memory architectures. *IEEE/ACM International Symposium on Code Generation and Optimization (CGO) Code Generation and Optimization*. Symposium conducted at the meeting of IEEE/ACM Internal Symposium.

Raghupathi, W., & Raghupathi, V. (2014). Big data analytics in healthcare: Promise and potential. *Health Information Science and Systems*, *2*, 3-13. doi:10.1186/2047-2501-2-3

Reeves, M., Levin, S., & Ueda, D. (2016). The biology of corporate survival: natural ecosystems hold surprising lessons for business. *Harvard Business Review*, *94*, 46-56. Retrieved from https://hbr.org/

Ricciardi, F., Zardini, A., & Rossignoli, C. (2016). Organizational dynamism and adaptive business model innovation: The triple paradox configuration. *Journal of Business Research*, *69*, 5487-5493. doi:10.1016/j.jbusres.2016.04.154

Richardson, A. (2016). *Dismantling the wall: The simplification of complex socio-technological systems and the implications for urban resilience* (Doctoral dissertation). RMIT University, Melbourne, Autralia. Retrieved from www.researchbank.rmit.edu.au

Robinson, O. C. (2014). Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative Research in Psychology, 11*(1), 25-41. doi:10.1080/14780887.2013.801543

Rowley, J. (2002). Using case studies in research. *Management Research News*, *25*, 16 – 27. doi:10.1108/01409170210782990

Sampson, J. P. (2017). *Guide to quantitative and qualitative dissertation research*. Tallahassee, FL: Florida State University Libraries. Retrieved from http://diginole.lib.fsu.edu/islandora/object/fsu:207241/datastream/PDF/view

Shaked, H., & Schechter, C. (2016). Sources of systems thinking in school leadership. *Journal of School Leadership*, *26*, 468-494. Retrieved from https://rowman.com/page/JSL

Shekhar S. A. (2014). Conducting case study research in non-profit organisations. *Qualitative Market Research: An International Journal, 17*(1), 77–84. doi:10.1108/qmr-04-2013-0024

Snyderman, D., Salzman, B., Mills, G., Hersh, L., & Parks, S. (2014). Strategies to help

    reduce hospital readmissions. *Journal of Family Practice*, *63*, 430-438. Retrieved

    from https://www.mdedge.com/jfponline/article/84500/practice-

    management/strategies-help-reduce-hospital-readmissions

Social Security Administration. (2017). *Calculators: Life Expectancy*. Retrieved from

    https://www.ssa.gov/planners/lifeexpectancy.html

Somerville, M. H., Seeff, L., Hale, D., & O'Brien, D. J. (2015). Hospital, collaboration,

    and community health improvement. *Journal of Law, Medicine & Ethics*, *43*, 56-

    59. doi:10.1111/jlme.12217

Sorsa, M. A., Kiikkala, I., & Astedt-Kurki, P. (2015). Bracketing as a skill in conducting

    unstructured qualitative interviews. *Nurse Researcher*, *22*, 8–12.

    doi:10.7748/nr.22.4.8.e1317

Sotiriadou, P., Brouwers, J., & Le, T. (2014). Choosing a qualitative data analysis tool: A

    comparison of NVivo and Leximancer. *Annals of Leisure Research, 17*, 218-234,

    doi:10.1080/11745398.2014.902292

Sturmberg, J. P., Martin, C. M., & Katerndahl, D. A. (2014). Systems and complexity

    thinking in the general practice literature: An integrative, historical narrative

    review. *Annals of Family Medicine*, *12*, 66–74. doi:10.1370/afm.1593

Teruel, M. A., Navarro, E., González, P., López-Jaquero, V., & Montero, F. (2016).

    Applying thematic analysis to define an awareness interpretation for collaborative

    computer games. *Information and Software Technology, 74*, 17-44.

    doi:10.1016/j.infsof.2016.01.009

Thamhain, H. J. (2014). Assessing the effectiveness of quantitative and qualitative

methods for R&D project proposal evaluations. *Engineering Management*

Journal, 26(3), 3-12. doi:10.1080/10429247.2014.11432015Thorpe, A. (2014).

Doing the right thing or doing the thing right: Implications of participant

withdrawal. *Organizational Research Methods*, *17*, 255-277.

doi:10.1177/1094428114524828

Thrul, J., Stemmler, M., Goecke, M., & Bühler, A. (2015). Are you in or out?

Recruitment of adolescent smokers into a behavioral smoking cessation

intervention. *Addictive Behaviors*, *45*, 150-155. doi:10.1016/j.addbeh.2015.01.030

Toh, M. R., Teo, V., Kwan, Y. H., Raaj, S., Tan, S. D., & Tan, J. Z. Y. (2014).

Association between number of doses per day, number of medications and

patient's non-compliance, and frequency of readmissions in a multi-ethnic Asian

population. *Preventive Medicine*, *1*, 43-47. doi:10.1016/j.pmedr.2014.10.001

Tonges, M., Ray, J. D., Overman, A. S., & Willis, B. (2015). Creating a culture of rapid

change adoption. *Journal of Nursing Administration*, *45*, 384-390.

doi:10.1097/NNA.0000000000000219

Torraco, R. J. (2016). Writing integrative literature reviews: Using the past and present to

explore the future. *Human Resource Development Review*, *15*, 404-428.

doi:10.1177/1534484316671606

Turner, N., & Almack, K. (2017). Recruiting young people to sensitive research: Turning

the 'wheels within wheels'. *International Journal of Social Research*

Methodology, *20*, 485-497. doi:10.1080/13645579.2016.1207943

U.S. Department of Health and Human Services. (2016). *The Belmont report: Ethical principles and guidelines for the protection of human subjects of research.* Retrieved from http://www.hhs.gov/

Uhl-Bien, M., Marion, R., & McKelvey, B. (2007). Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era. *Leadership Quarterly*, *18*, 298–318. doi:10.1016/j.leaqua.2007.04.002

Volland, J. (2014). Creating a new healthcare landscape. *Nursing Management*, *45*(4), 22-28. doi:10.1097/01.numa.0000444871.32074.36

Vohra, V. (2014). Using the multiple case study design to decipher contextual leadership behaviors in Indian organizations. *Electronic Journal of Business Research Methods, 12*, 54-65. Retrieved from http://www.ejbrm.com

Walters, T. (2016). Using thematic analysis in tourism research. *Tourism Analysis*, *21*, 107-116. doi:10.3727/108354216X14537459509017

Wang, H., Demerouti, E., & Le Blanc, P. (2017). Transformational leadership, adaptability, and job crafting: The moderating role of organizational identification. *Journal of Vocational Behavior*, *100*, 185-195. doi:10.1016/j.jvb.2017.03.009

Ward-Smith, P. (2016). The fine print of literature reviews. *Urologic Nursing, 36*, 253-254. doi:10.7257/1053-816X.2016.36.5.253

Weberg, D. (2012) Complexity leadership: A healthcare imperative. *Nursing Forum*, *42*, 268-277. doi:10.1111/j.1744-6198.2012.00276.x

Whelan, C. (2016). Organisational culture and cultural change: A network perspective. *Australian & New Zealand Journal of Criminology*, *49*, 583-599. doi:10.1177/0004865815604196

Whitman, E. (2016). Great job reducing readmissions, hospitals—but it's about to get harder. *Modern Healthcare*, *46*, 10-10. Retrieved from www.modernhealthcare.com

Willis, C. D., Saul, J., Bevan, H., Scheirer, M. A., Best, A., Greenhalgh, T., … Bitz, J. (2016). Sustaining organizational culture change in health systems. *Journal of Health Organization and Management*, *30*(1), 2–30. doi:10.1108/JHOM-07-2014-0117

Winborn, M. S., Alencherril, J., & Pagán, J. A. (2014). A news media analysis of the economic and reputational penalties of the hospital readmissions reduction program. *Journal of Health Care Organization, Provision, and Financing*, *51*. doi:10.1177/0046958014561635

Wolgemuth, J. R., Hicks, T., & Agosto, V. (2017). Unpacking assumptions in research synthesis: A critical construct synthesis approach. *Educational Researcher*, *46*, 131-139. doi:10.3102/0013189X17703946

Wood, T., & Caldas, M. P. (2001). Reductionism and complex thinking during ERP implementations. *Business Process Management Journal*, *7*, 387-393. doi:10.1108/14637150110406777

World Data Bank Group. (2017). *Health expenditure, public (% of government expenditure)*. Retrieved from http://www.data.worldbank.org/

Xu, M. A., & Storr, G. B. (2012). Learning the concept of researcher as instrument in

    qualitative research. *Qualitative Report*, *17*, 1-18. Retrieved from

    http://tqr.nova.edu

Yazan, B. (2015). Three approaches to case study methods in education: Yin, Merriam,

    and Stake. *Qualitative Report, 20*, 134-152. Retrieved from http://tqr.nova.edu/

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks,

    CA: Sage.

Yu, H., Abdullah, A., & Saat, R. M. (2014). Overcoming time and ethical constraints in

    the qualitative data collection process: A case of information literacy research.

    Journal of Librarianship and Information Science, 46(3), 1-15.

    doi:10.1177/0961000614526610

Zhao, Y. (2014). Interpreting innovation dynamics with complexity theory. *International*

    Journal of Innovation & Technology Management, *11*(5), 1-18.

    doi:10.1142/S0219877014500357

Zuckerman, R. B., Sheingold, S. H., Orav, E. J., Ruhter, J., & Epstein, A. M. (2016).

    Readmissions, observation, and the hospital readmissions reduction Program.

    New England Journal of Medicine, *374*, 1543–1551.

    doi:10.1056/NEJMsa1513024

Appendix A: Interview Protocol

Objective: To host a semistructured interview with hospital leaders to discuss organizational strategies to reduce hospital readmissions

1. I will begin the interview process with introductions and thanking the participant for their time and contribution to the study.

2. We will have a brief discussion on the nature of the study and the purpose of the interview.

3. I will explain to the participant that their participation is voluntary and that they may withdraw during any point in the process. The participants may notify me via either email or in-person

4. I will ensure participants read, understand, and sign the informed consent form prior to beginning the interview. Additionally, I will provide them a copy of the form.

5. Next, we will discuss the format of the interview and that I will record the audio of the interview.

6. I will limit the interview to 30 minutes for 8 primary questions and any follow-up questions.

7. I will tell the participants that they will receive a summary of their answers that I will synthesize the responses from the transcripts of the interviews. I will ask them to confirm their responses to assure accuracy.

8. Lastly, I will thank the participants for their time and willingness to participate and inform them that I will conduct the process of member checking once I synthesize their answers.

Interview Questions

1. What organizational strategies do you use to reduce patient readmissions?

2. What is the role of hospital leaders in developing and implementing strategies to reduce readmission rates?

3. How do you monitor the success of your initiatives to reduce readmissions?

4. Which programs, policies, or strategies have proven most successful in reducing readmissions?

5. What are the biggest challenges and barriers you encounter as a hospital leader in implementing strategies to reduce readmissions?

6. How have you addressed the challenges to implementing the strategies to reducing readmission rates?

7. What are the issues affecting readmissions outside the control of the hospital?

8. What else you would like to add about your organizational strategies to reduce readmission rates?

Appendix B: Letter of Cooperation

<Community Research Partner Name>
<Contact Information>

<Date>

Dear Steven Warchol,

Based on my review of your research proposal, I give permission for you to conduct the study entitled Organizational Strategies to Reduce Hospital Readmissions within this facility. As part of this study, I authorize you to interview current organizational team members, review organizational documentation, and receive feedback from participants.

Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include: access to managerial team members and conferences rooms or private offices. We reserve the right to withdraw from the study at any time if our circumstances change.

The student will be responsible for complying with our site's research policies and requirements, including: <please describe any requirements>

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization's policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Walden University IRB.

Sincerely,

<Authorization Official>
<Contact Information>

Appendix C: National Institutes of Health Certificate of Completion

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Steven Warchol** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 07/08/2016.

Certification Number: 2108379.

Appendix D: Nondisclosure Agreement

I, [name of transcriber], agree to transcribe data for this study. I agree that I will:

1. Keep all research information shared with me confidential by not discussing or sharing the information in any form or format (e.g., disks, tapes, transcripts) with anyone other than Steven Warchol, the researcher on this study;

2. Keep all research information in any form or format (e.g., disks, tapes, transcripts) secure while it is in my possession. This includes:

   - using closed headphones when transcribing audio-taped interviews;

   - keeping all transcript documents and digitized interviews in computer password-protected files;

   - closing any transcription programs and documents when temporarily away from the computer;

   - keeping any printed transcripts in a secure location such as a locked file cabinet; and

   - permanently deleting any e-mail communication containing the data;

3. Give all research information in any form or format (e.g., disks, tapes, transcripts) to the primary investigator when I have completed the research tasks;

4. Erase or destroy all research information in any form or format that is not returnable to the primary investigator (e.g., information stored on my computer hard drive) upon completion of the research tasks.

_____ _____

Signature of transcriber   Date