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Strategies to Reduce Costs Associated with Hospital Readmissions

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Walden University
2020

Abstract

Strategies to Reduce Costs Associated with Hospital Readmissions

By

Almunzer Zakaria

MBA, Syrian Virtual University, 2011

BS, Tishreen University, 2002

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

February 2020

Abstract

Hospital administrators struggle to reduce hospital readmissions to improve hospital performance. Reducing costs of readmissions is important to hospital administrators because it may lead to an inability to meet budget requirements. Grounded by complex adaptive systems and business process quality management principles, the purpose of this qualitative single case study was to explore strategies nonprofit hospital administrators use to reduce costs associated with hospital readmissions. Participants included 4 successful hospital administrators at 1 hospital in Doha, Qatar, who have responsibility for overseeing readmissions. Data were collected using semistructured face-to-face interviews and organizational documents. Traditional text analysis was used to identify 3 themes: discharge plan and patient education, medication reconciliation, and effective follow-up appointment system. Implications for social change include patient engagement and organizational support for continuity of care at home, which prevents readmissions and its impact on treatment costs and patient's overall wellness. Enhancing the wellness of the individuals may generate a better quality of life for residents, while hospital administrators can allocate remaining funds for community extension services.

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Dedication

I dedicate this doctoral study to my wife Nour, my children Abduljalil, Masa, and Maria, my parents, and my brothers for their prayers, love, and support during this journey.

Acknowledgments

I would like to thank Dr. Carol-Anne Faint, Dr. David Blum, Dr. Al Endres, Dr. Doug Keevers, Dr. Mary Dereshiwsky and my other professors and classmates at Walden University for their tremendous support, your mentorship and guidance significantly contributed to my success. Also, I would like to thank Dr. Susan Davis for her leadership in the Doctor of Business Administration program.

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Section 1: Foundation of the Study

Hospital readmissions are one of the most significant indicators that measure the effectiveness of care provided by a healthcare facility (Berry et al., 2018). Readmission rates are important hospital quality indicators (Friebel, Hauck, Aylin, & Steventon, 2018). Despite the importance of reducing readmissions, global readmission rates at 28 to 30 days for medical inpatients range between 10% to 22%, similar to that in Qatar (Kartha, Uddin, Bakhsh, & Hegde, 2017). These high rates indicate trouble, not only for patient outcomes but also for a hospital's financial health (LaPointe, 2018). With the increasing emphasis on value-based healthcare, patients returning to facilities treated for conditions and issues improperly addressed on their initial interaction with a healthcare provider compromises quality (Friebel et al., 2018). However, Auerbach, Kripalani, and Vasilevskis (2016) argued that a good proportion of readmissions are preventable. Thus, in this study I sought to identify strategies hospital administrators use to reduce cost associated with hospital readmissions.

Background of the Problem

Hospital readmissions are important to patients, families, healthcare providers, and policymakers throughout the world, as reducing these events can improve care and reduce costs (Berry et al., 2018). Readmission rates are a trusted measure of effective and responsible care by hospital administrators as signals and indicators of hospital performance (Friebel et al., 2018; Parina, Chang, Rose, & Talamini, 2015). Health care reforms in many countries have pinpointed patient readmissions as a key area for improving care coordination and achieving potential savings (Kristensen, Bech, &

Quentin, 2015; Shameer et al., 2017). In the United States, readmissions are already one of the costliest episodes to treat, with hospital costs reaching $41.3 billion for patients readmitted within 30 days of discharge (LaPointe, 2018).

Evidence has shown that premature discharge from hospitalization, failure to relay important information to healthcare professionals, lack of discussions about care goals among patients with serious illnesses, and emergency department decision-making are the most pressing causes of hospital readmissions (Auerbach et al., 2016). In several studies, discharge before the target time is associated with hospital readmission in pediatric patients (Walker, 1998), internal medicine patients (Nguyen et al., 2017), and surgical patients. The root causes of readmission are highly preventable, given appropriate organizational strategies in place. However, limited information is available about strategies to prevent readmissions in Qatar and the Middle East region in general; hence, there is a gap in business practice. The objective of this study was to explore the strategies used by hospital leaders and administrators in managing and reducing patient readmissions.

Problem Statement

Healthcare managers and administrators should have tangible policies regarding discharging patients to avoid unnecessary readmissions linked to wasteful hospital expenditures (Upadhyay, Stephenson, & Smith, 2019). Patient complications, which may require patient readmission, are estimated to increase cumulative costs from $18,000 to $23,000 per incident (Gross, Nelson, Nyarko, Richardson, & Raskob, 2016). The general business problem was that hospital administrators who do not address readmission might

experience increased costs such as costs for additional supplies, human resources, and medications. The specific business problem was that some nonprofit hospital administrators lack strategies to reduce costs associated with hospital readmissions.

Purpose Statement

The purpose of this qualitative single case study was to explore strategies nonprofit hospital administrators use to reduce costs associated with hospital readmissions. The target population for this study consisted of four hospital administrators at one hospital who have responsibility for overseeing the readmissions process located in Doha, Qatar. The implications for social change may include reduced readmissions, which reflects the improved quality of individual patient care while promoting population health and controlling healthcare costs.

Nature of the Study

I considered the qualitative method, the quantitative method, and mixed methods, for the study. I used the qualitative method as the qualitative researcher seeks to explore phenomena where no previous understanding may exist; thus, the process may expose new insights and practices. To examine the relationships or differences among variables, researchers use the quantitative methodology (Christenson & Gutierrez, 2016). The quantitative method was not appropriate for this study as the purpose in this study was not to find the statistical relationships or differences among variables. A mixed methods study is a combination of quantitative and qualitative methods in the same study (Yardley & Bishop, 2015). The exclusion of the quantitative method rendered mixed methods unsuitable for this doctoral study.

I chose a single case study design to investigate the varied inputs from different administrators within one setting and to obtain information about the phenomenon bounded by time and place. Researchers will use an ethnographic design to explore the customs, culture, beliefs, behaviors, or other social traditions of a population (Keutel, Michalik, & Richter, 2014). The ethnographic design was not used in this research because studying groups' cultural behavior, customs or beliefs would not address the research question. Researchers may use phenomenological design to capture meanings derived from the lived experiences of participants (Reiter, Stewart, & Bruce, 2011). Phenomenology was not used as I was not exploring lived experiences. I determined that a case study would be the most effective methodological design.

Research Question

What strategies do nonprofit hospital administrators use to reduce costs associated with hospital readmissions?

Interview Questions

1. What strategies are used upon discharge to assist the patient to continue the recovery process to avoid readmissions?

2. What services are available in the hospital to support patients post-discharge?

3. What conditions do hospital caregivers indicate as reasons for readmissions?

4. What are the existing barriers that contribute to increased readmissions?

5. How has the organization addressed the key challenges to implement the recommended strategy for reducing readmissions?

6. What measures do you use to monitor the effectiveness of the hospital's strategy to reduce readmissions?

7. What additional information provided necessary in understanding cost reduction associated with hospital readmissions?

Conceptual Framework

The conceptual framework for this study was based upon complex adaptive system (CAS) theory developed by Holland (1992). The CAS is a management theory about business process quality management (BPQM). In CAS, health care administrators apply the principles of systems thinking and business process management to improve health system outcomes (Buttigieg, Dey, & Gauci, 2016). Health care administrators integrate these two principles in a health care organization to enable the organization to reduce costs and enhance productivity (Buttigieg et al., 2016).

Business owners use CAS to manage uncertainties in business by recognizing complexity, patterns, and relationships for focusing on cause and effect. The tenets of CAS are (a) self-organization, (b) nonlinearity, (c) dynamic nature, and (d) emergence (McDaniel, Lanham, & Anderson, 2009). According to Lipsitz (2012), understanding health care as a complex system and applying these four principles of CAS guide policymakers and hospital administrators to respond effectively to unforeseen consequences. The CAS is applicable to this study as healthcare delivery is challenged by system complexity characterized by diverse and autonomous units, which are interrelated, interdependent, and behave as one system in learning and in adapting to environmental changes.

Organizational leaders use BPQM to continuously improve, analyze, design, redesign, and implement key operations in line with organizations' strategies (Laguna & Marklund, 2013). The six core elements of BPQM are (a) strategic alignment, (b) governance, (c) methods, (d) information technology, (e) people, and (f) culture (Rosemann & vom Brocke, 2015). Using BPQM, organizational leaders might address health care problems and challenges through integrated systems to enhance productivity by identifying how to improve processes and performance (Buttigieg et al., 2016).

Operational Definitions

Adverse event: is any unintended physical injury resulting from or contributed to by medical care, including the absence of indicated medical treatment that requires additional monitoring, treatment, or hospitalization, or that results in death (Wasfy et al., 2017).

Hospital readmission: occurs when a patient is admitted to a hospital within a specified period after being discharged from an earlier (initial) hospitalization (Boccuti & Casillas, 2017).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are conditions that the researcher accepts as true, but cannot be proved before the investigation; thus, these are often considered temporary (Pyrczak & Bruce, 2017). One assumption for this research was that during the interview, the selected study participants would respond with candor. A second assumption was that participants

would recall vital information at the time of the interview to strengthen the quality of the research.

Limitations

Limitations are weaknesses (Pyrczak & Bruce, 2017) or constraints beyond the control of the researcher, which may affect study outcomes (Munthe-Kaas et al., 2018). One limitation was that the results may not provide generalizations due to the small sample size. Another limitation was that some participant responses may contain bias.

Delimitations

Delimitations provide the boundaries, which are deliberately confined by the researcher (Pyrczak & Bruce, 2017). Delimitations for this study involved the number of participants and the geographic location of the study. First, participants of this study included only four hospital administrators with at least 5 years of experience in healthcare. Second, the study included only one nonprofit hospital located in Doha, Qatar.

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

Contribution to Business Practice

Hospital administrators who are responsible for improving hospital performance may use the identified strategies to effectively design policies and develop a system that might reduce medical errors and costs associated with hospital readmissions. The results of this study may help hospital administrators improve cooperation between care providers across the hospital, decrease the communication errors by implementing an evidence-based discharge program, and decrease the adverse events, which ultimately

might reduce readmissions. Reducing readmissions may create efficiencies within the hospital, alleviating waiting lists, while fostering improved postdischarge outcomes for patients (Uminski et al., 2018).

Implications for Social Change

The results of this study may contribute to positive social change by enhancing the health and wellness of hospitalized patients. The findings of this study may provide evidence-based strategies that hospital leaders can use in reducing costs associated with hospital readmissions. The outcomes might affect social change by helping other hospital administrators improve the quality of healthcare services provided to patients, promote good clinical outcomes for patients through reducing healthcare costs, and promote public health (Friebel et al., 2018).

A Review of the Professional and Academic Literature

Readmission rates are measures of quality and safe patient care increasingly used as important indicators of hospital performance (Friebel et al., 2018). Health care reforms in many countries identified patient readmissions as a crucial area for improving care and financial outcomes (Kristensen et al., 2015). Despite the obvious importance of reducing readmissions, international readmission rates range from 10% to 22%, similar to that in Qatar (Kartha et al., 2017). The purpose of this study was to explore the strategies that nonprofit hospital administrators use to reduce costs associated with hospital readmissions.

Previous researchers have explored strategies to prevent hospital readmissions. An analytical review of the literature provided a critical analysis and synthesis of this

previous research. The literature review provided me with knowledge about the topic of hospital readmission management. The sections of the literature review included the following subsections (a) complex adaptive system, (b) complex adaptive system in healthcare, (c) business process quality management, (d) hospital readmissions, (e) application of CAS to hospital readmissions, (f) application of BPQM to hospital readmissions, and (g) strategies to reduce readmissions. The literature review included 112 articles. Of the total number of references, 95 were peer-reviewed articles. The keywords used in the literature search were *hospital readmissions, complex adaptive systems, readmissions strategies,* and *healthcare management.* After discussing CAS and BPQM, I will then address the larger issue of research on readmissions.

This study was based upon CAS developed by Holland (1992) and BPQM. Health care leaders can benefit from integrating these two principles in the system by enabling the organization to have the ability to reduce costs while improving customer satisfaction and financial result. Healthcare leaders who apply CAS and BPQM may reduce hospital readmissions by assuring quality care and optimal patient outcomes through identifying and addressing the key processes to reduce readmissions.

Any company operating in a competitive environment that desires to become a benchmark in the business world needs a managerial model that enables the development of systemic thinking on the part of its executives (Wollmann & Steiner, 2017). Also, the current information and knowledge age coexist with emerging models, such as the models based on complexity theories; of these models, systems thinking and nonlinearity stand out (Chen, 2016). Systems thinking can be understood as a philosophy or a way of

producing, interpreting, and using knowledge. This is a method for solving problems and organizing complex sets of concepts and fragmented views (Arpon, 2015). It enables the integration of concepts and specific theories with a view of interpreting and seeking solutions to problems. This led to changing paradigms in decision-making processes. Since complex systems are adaptive by nature, the companies have co-evolutionary characteristics when companies depend on system learning (Wollmann & Steiner, 2017). The intrinsic dynamic nature of the method requires companies to have the capacity to adapt, and this is fundamental for their survival (Wollmann & Steiner, 2017).

Complex Adaptive System

The purpose of this study is to explore the strategies of administrators at a nonprofit hospital in managing and preventing hospital readmissions. Holland (1992) proposed CAS, which is a theory of systems composed of interacting agents. Holland pointed out that each agent adapts to the changing environment by competing with the other agents. The adaptive characteristics of agents in CAS display a series of complex phenomena, such as self-organization, self-adaptation, and emergence (Zhang & Cui, 2016). The CAS are systems of components (agents) that interact with one another according to a set of rules (Wollmann & Steiner, 2017). The evolution of the system results from interactions between agents, where each of them responds to the behavior of other agents in the system, all of which have their own dynamics. According to Wollmann and Steiner (2017), the behavior of each agent influences and is holistically influenced by the behavior of the system agents in CAS.

Systems thinking and complexity science are two fundamental areas of CAS. When a person uses systems thinking as a method of framing problems to understand an issue, the person must understand each part of the system and how each part relates to another in the system (Shaked & Schechter, 2016). However, Gates (2016) explained that complexity science, like systems thinking, is a set of concepts and approaches for analyzing multifaceted systems. Gates argued that although systems thinking and complexity science are distinct concepts, both could be used interchangeably when analyzing complex systems.

Many system-based methodologies are derived from systems thinking, including interactive planning, soft systems thinking, and system dynamics. Regardless of the approach, the core of systems thinking is encapsulated in the concept of systemic wholeness, which is understood by looking at the whole instead of the parts (Pourdehnad, Wexler, & Wilson, 2018; Shaked & Schechter, 2016). A complex whole is a system involving interacting elements. Failing to consider systemic properties as derived from the interaction of the parts leads to suboptimization of the performance of the whole (Pourdehnad et al., 2018).

The concept of agents is an important component of CAS (Warchol, 2018). Agents are independent parts that make decisions, receive inputs from other agents, and send information to other agents (Warchol, 2018). In addition, agents interact with and influence one another continuously (Chandler, Rycroft-Malone, Hawkes, & Noyes, 2016). Agents interact on a localized basis, but the cumulative impact of their interactions affects the entire system; therefore, an overall organization or CAS comprises numerous

sets of agents (Warchol, 2018). Examples of agents include all team members in an organization as well as personnel in other organizations with which team members interact (Pype, Mertens, Helewaut, & Krystallidou, 2018). Agents in a CAS are humans, so agents have limitations. Chandler et al. (2016) stated that one main drawback of agents is that knowledge and history set limitations. 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 self-organization (Chandler et al., 2016). Self-organization is a dynamic and adaptive process where systems acquire and maintain its structure without external control (Wohl, 2018). The availability of localized resources partially determines 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. The emergence and self-organization of agents depend upon certain aspects of the system in which agents operate (Warchol, 2018). A system creates an environment for emergence and self-organization when it reaches a critical level of influence (Gordon, Rees, Ker, & Cleland, 2016). These elements are the presence of multiple agents and their ability to act, the connectivity of agents, the interdependency of agents, and the array of populations operating in the fitness landscape (Gordon et al., 2016). These four aspects are essential for the formation of self-organizing agents in modern organizations.

An important aspect of self-organization is the organization part of the concept (Wohl, 2018). The organization is the arrangement of selected parts to promote a specific function. The organization restricts the behavior of the system in a way as to confine it to

a limited possible outcome. In essence, the organization could be an increase in the order of the system behavior, which enables the system to acquire a spatial, temporal, or functional structure (Wohl, 2018). A system with no order cannot exhibit useful behavior (Wohl, 2018). Also, a system with too much order can have this problem (Wohl, 2018). Processes may organize themselves into conditions so complex that no proper functionality can result from it (Wohl, 2018). Therefore, self-organization needs to find a balance between no order and too much order, for systems to exhibit a more flexible and organized behavior (Wohl, 2018).

Complex Adaptive System in Healthcare

Leaders and scholars might use complex systems as a framework to understand organizations and the environment in which leaders and scholars operate (Brainard & Hunter, 2015). The CAS is an appropriate management theory to frame research based on the modern healthcare system because of the complex nature of the industry and corresponding business problems (Warchol, 2018). Leaders can apply systems thinking to a massive structure like a healthcare system. Healthcare systems have a multitude of regulations, governing entities, legislators, providers, and hospitals. Additionally, healthcare has one of the largest budgets in the United States, and affects both local and national economies (Ottolini, Buggio, Somigliana, & Vercellini, 2016). In 2018, the healthcare budget represented 11% of the total expenditure in Qatar (Ministry of Finance, Doha, 2019). If 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 (Warchol, 2018). 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.

Investigations into the nature of health have led to a new definition that explains health as a CAS and is based on five components (a) life's demands, (b) biologically given potential, (c) personally acquired potential, (d) social determinants, and (e) environmental determinants (Bircher & Hahn, 2016). Added that in each patient, the current state of health as a CAS evolved from the past, will move forward to a new future, and must be analyzed and treated as an autonomous whole (Bircher & Hahn, 2016). A diagnostic procedure may help patients to better understand their situations and to recognize possible next steps that may be useful to evolve toward better health. The described approach offers new possibilities for helping patients improve their health prospects (Bircher & Hahn, 2016).

The application of complexity science to healthcare systems can provide new insights into the issue of readmissions. Penney et al. (2018) argued that defining characteristics of CAS are diverse learning agents who interact non-linearly and who self-organize; however, these complex systems co-evolve with their environment and have emergent properties that are not predictable. Inputs and outputs are not necessarily proportional to the systems' non-linearity (Penney et al., 2018). Though organizations might implement care transition programs, the amount of effort put into their programs is not necessarily proportional to readmission rate outcomes, added that the inherent non-linearity of complex systems leads to uncertainty which may occur during transitional periods for patients (Penney et al., 2018). The home environment is often not well known

to the staff and the possibility of the patient developing a relapse is significant. In these situations, uncertainty is compounded and implementing new initiatives and changing processes also introduce uncertainty. An implication of this is that improvement efforts need to focus on the process of care and on the relationships between and interdependencies among healthcare providers (Penney et al., 2018).

Business Process Quality Management

Many theorists, including Juran and Deming, addressed the problems of quality improvement, efficiency of the processes, reduction of waste, and strategy alignments; these methodologies categorize as BPQM (Grzibowska & Islam, 2011). Organizations can be more effective and efficient with the proper alignment of operations management methods, such as business process management (BPM) and quality management system (QMS) (Breyfogle, 2015). Two key aspects of BPQM are process and quality; these two are viewed separately but have similarities. The BPM is a methodology that focuses predominantly on designing, modeling, execution, monitoring and optimizing business processes to help an organization work more efficiently and this is achieved through capturing and documenting an organization's current-state end-to-end processes (Kumar, 2018). BPM takes control of processes to direct roles, responsibilities, processes and policies within an organization (Breyfogle, 2015). In addition, it is composed of techniques, methods and tools that support the design, development, management and analysis of business processes that involve humans, organizations, applications, documents and other information sources; BPM enables organizations to make faster and better decisions and improve the process to contribute better business results for them

(Mallur, 2015). A quality management system houses the processes, policies, and procedures required to help an organization achieve quality standards to to ensure customer satisfaction (Moradi et al., 2015). The BPM's focal point is on business processes while the QMS pays more attention to the various management techniques that increase productivity and quality (Breyfogle, 2015). Alignment of these two can have benefits when following a horizontal approach, unlike traditional management processes that tend to focus more on functions. With this approach, all sections: staff, customers, suppliers and clients, are involved (Breyfogle, 2015).

To this end, business process management systems, which include workflow, integration, rules, and analytics, have made significant contributions to improving the quality, efficiency, and flexibility of healthcare information systems; and are considered as essential (Kemsley, 2018). Workflow takes business processes to the next level in terms of functionality, and organizations that are not using it are missing an opportunity (Kemsley, 2018). Health care organizations must meet high-reliability standards to ensure compliance with industry regulations and their own best practices to reduce adverse events. Process improvement and automation can root out inefficiencies and reduce costs, while process intelligence can provide context to improve decision making and patient care quality. The integration of BPM with the line-of-business HIS/EHR systems is critical to providing an efficient environment that allows health care workers to focus on the patient (Kemsley, 2018). Also, BPM could help manage processes and data across all aspects of patient care, connecting the right person with the right task and information at the right time, while providing the ability to quickly adapt processes to changing

requirements. With BPM, patient care quality and administrative efficiency are no longer conflicting goals in health care processes because applying BPM in healthcare can do the following: enforce standard processes and protocols to reduce errors and improve patient safety; automate non-value-added tasks such as scheduling notifications, allowing clinicians to focus on patient care; monitor, predict, and improve care processes while in progress, not after the patient has been discharged; predict and avert resource bottlenecks before it occurs; automate early identification of time-sensitive conditions, based on vital signs monitoring and analytics; reduce waste within processes in terms of wait time, inventory, and resources; and capture quality and compliance metrics to reduce administrative paperwork (Buttigieg et al., 2016; Kemsley, 2018).

Hospital Readmissions

Unplanned readmissions are associated with patient discontent, increased health care costs, and increased risks for morbidity and mortality; moreover, patient dissatisfaction may arise from the perception that the readmission was preventable (Shuster, Hurlburt, Tam, & Staples, 2018). Reducing hospital readmissions has been the goal of policymakers in creating a health policy because it represents an opportunity to lower health care costs, improve quality, and increase patient satisfaction at once (Klein, 2018). Based on the study done by The Agency for Healthcare Research and Quality, 19% of the patients admitted to hospital with preventable admissions had at least one preventable readmission within 6 months from the day of discharge (Klein, 2018). Readmissions are one of the costliest business quality issues to treat, with hospital costs reaching $41.3 billion for patients readmitted within 30 days of discharge in the United

States (LaPointe, 2018). Healthcare providers understand that high hospital readmission rates spell trouble for patient outcomes. Also, high readmissions threaten a hospital's financial health, especially in a value-based reimbursement environment (LaPointe, 2018). Hospital readmission measures have been touted not only as a quality measure, but also to reduce the healthcare cost (McIlvennan, Eapen, & Allen, 2015). Historically, hospital readmissions are associated with unfavorable patient outcomes and high financial costs (McIlvennan et al., 2015; Shameer et al., 2017). In the United States, The Affordable Care Act (ACA) established the Hospital Readmission Reduction Program (HRRP) in 2012; under this program, hospitals are financially penalized if with higher readmission rates than the expected risk-standardized 30-day readmission rates for acute myocardial infarction, heart failure, and pneumonia (McIlvennan et al., 2015).

In Canada, according to the Canadian Institute for Health Information (CIHI), unplanned hospital readmissions affect almost 200,000 Canadians annually (Shuster et al., 2018); costing Canadian taxpayers over $1.8 billion per year, which represents 11% of annual inpatient costs (Shuster et al., 2018). Large cohort studies have found the mortality rate after a hospital readmission to be 19% in 30 days and 39% in one year; the latter represents a threefold increase in risk for patients who were readmitted compared with patients who remained in the community after hospital discharge (Staples, Thiruchelvam, & Redelmeier, 2014). Hospital readmission rates are calculated by determining the proportion of discharged patients who are readmitted within a designated time frame (Shuster et al., 2018). A 30-day time frame is usually used, although there is no clear justification for this choice (Graham, Wilker, & Howell, 2015). Criteria in

measuring readmission rates often differ among institutions, making it difficult to compare hospitals' self-reported data (Shuster et al., 2018). For example, planned readmissions, such as for elective surgery, are frequently excluded from the criteria, but only some hospitals exclude psychiatric and palliative discharges from it. (Shuster et al., 2018). Hospital-based tracking programs also often fail to consider 20% of readmissions that are known to occur at a different hospital (Staples et al., 2014).

Patient risk factors for unplanned hospital readmission include male sex, advanced age, increased comorbidity burden, lower socioeconomic status, and increased hospitalizations within the last 6 months (Staples, et al., 2014). Patients with chronic medical condition upon initial admissions are at highest risk for readmission: about 20% of patients initially admitted for chronic obstructive pulmonary disease or heart failure are readmitted within 30 days and among surgical patients, those undergoing colostomy or enterotomy are at highest risk for readmission (Shuster et al., 2018). The main readmission risk factor in any patient is having been hospitalized twice or more in the 6 months before the initial admission. According to Shuster et al. (2018), on average, discharging a patient at least one day earlier than the nationally expected length of stay will increase the relative risk of readmission by approximately 40%. The cumulative influence that these competing forces have on the cost to the health care system remains controversial.

Approximately 5% of unplanned hospital readmissions are preventable, but an effective and focused intervention to prevent them is still unknown (Shuster et al., 2018). Multiple-component interventions, specifically where at least three strategies are used to

reduce readmissions, have shown promise but have been difficult to replicate (Bradley, Sipsma, & Horwitz, 2015). The largest and most effective readmission reduction effort to date is the ongoing HRRP in the United States (Shuster et al., 2018). Through the HRRP policy, hospitals with higher-than-expected condition-specific 30-day readmission rates for United States Medicare patients are financially penalized. This has resulted in significant reductions in the 30-day readmission rate for both targeted conditions from 24.1% to 22.5% and for non-targeted conditions from 17.8% to 17.3% (Zuckerman, Sheingold, Orav, Ruhter, & Epstein, 2016). However, recent analyses found that the introduction of the HRRP was associated with a 30-day mortality rate increase after an admission for heart failure (from 7.2% to 8.6%) (Gupta, Allen, & Bhatt, 2018). In Qatar, based on the data collected by one corporation from 2016 to 2017, reports indicated that 16% patients were readmitted within 28 days of discharge (Ministry of Public Health, State of Qatar, 2018).

Application of CAS to Hospital Readmissions

The CAS has many applications to the current healthcare environment (Warchol, 2018). Modern healthcare organizations, such as hospitals are CAS (Barasa, Molyneux, English, & Cleary, 2017). In addition, hospital leaders attempting to address the national issue of hospital readmissions need to understand how varying organizations and stakeholders interact with each other (Warchol, 2018). By viewing hospitals as CAS, hospital leaders can create a culture in which organizational team members self-organize and create unique solutions to solve modern complex issues or problems (Chandler et al., 2016). 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 (Nijs, 2015). The societal issue of hospital readmissions is a complex problem involving a multitude of stakeholders outside of the direct control of hospital leaders (Warchol, 2018). Another factor is that hospital clinicians treat medically complicated patients, which compounds the complex issue of hospital readmissions (Warchol, 2018). 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; thus, to establish meaningful initiatives to reduce readmissions, hospital leaders need to take a holistic approach and understand the context of their patient population (Warchol, 2018). 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 (Warchol, 2018). The context of an issue creates genuine problems not seen elsewhere.

Hospital leaders and clinicians need to comprehend the full context of the issues their patients encounter beyond the physical bounds of the hospital (Warchol, 2018). If hospital leaders create some new solutions to reduce hospital readmissions, the leaders will 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. There are various definitions for organization culture without an agreement from the researchers (Willis et al., 2016). Price et al. (2018) 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 organizational structures and networks (Price et al., 2018). In addition, the culture of an organization has a reciprocal relationship with team members of the company. The culture affects each team member just as each team member, leader, or otherwise, influences the culture.

Consequently, business leaders need to understand their organizational culture if leaders implement successful strategies to reduce hospital readmissions. 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 may take extended periods to implement (Whelan & Fink, 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 use many elements of CAS to create an organizational culture that supports their readmission reduction initiatives, including a bottom-up approach to solution development. 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 (Warchol, 2018), leaders need to identify new solutions to resolve the issue. The bottom-up approach to

leadership and solution development is a major theme of organizations as CAS that is applicable to reducing hospital readmissions (Warchol, 2018).

The culture of a hospital has important implications for leaders, clinicians, team members, and patients. Organizational culture has a significant effect on both the safety of team members and the quality of care clinicians provide to patients (Allen, Braithwaite, Sandall, & Waring, 2016). If hospital leaders are to focus efforts on improving patient outcomes and embrace the shifting payment structure, improving the organizational culture may increase the safety of staff while reducing readmission rates, thus mitigating the financial effects of hospital readmissions. Adapting the organizational culture towards the integration of the strategic vision of the stakeholders will help produce unique solutions to a traditional problem (Faraji-Khiavi, Ghobadian, & Moradi-Joo, 2015). According to Warchol (2018), the issue of hospital readmissions is a problem from the industrial era, but the solution will need to come from the knowledge era; thus, 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.

Complexity leadership is based upon the application of complex theory to the study of organizational behavior and practice of leadership (Brown, 2015). 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. Hospital administrators can use complexity leadership theory to recognize the vast amount of societal issues and stakeholders that can influence healthcare operations (Chandler et al.,

2016). Theorists address the issue of organizational leaders' ability to allow team members to self-organize and produce novel solutions to succeed in a complex landscape (Arena & Uhl-Bien, 2016).

Application of BPQM to Hospital Readmissions

Business process management is one of the methodologies of BPQM. Business process management has a vital role in ensuring organizational competitiveness by improving processes. Performance management in healthcare focuses more on patient outcomes, by re-focusing clinical performance on processes patient morbidity and mortality statistics can be improved (Buttigieg et al., 2016). Moreover, applying the core elements in the hospital process may reduce hospital readmissions. The core elements in the hospital process are the following: evaluation, discussion, planning, determining, referrals and arrangement. Healthcare providers must evaluate the patient's condition properly to identify high risks patients. Discussion of the care management plan involves patient, the patients' family, and the healthcare team. The discussion may involve the discharge plan, transfer to a post-acute healthcare facility, nursing facility, or a transfer home with or without healthcare services. Determine the correct support system after patient discharge. The team may refer the patient, if necessary, to a post-acute provider like a rehabilitation center or skilled nurse. The team may arrange any follow-up appointments prior to the actual discharge to ensure that the plan of care is on track and ready to be implemented after discharge (Silow-Carroll, Edwards, & Lashbrook, 2011).

Strategies to Reduce Hospital Readmissions

Research shows that patients often have difficulty understanding their hospital diagnoses, medications, and other self-care instructions, and that medication nonadherence is common (Jenq, Doyle, Belton, Herrin, & Horwitz, 2016; Wasfy et al., 2017; Zuckerman et al., 2016). Many patients' illnesses remain unresolved by the time patients leave the hospital (Jenq et al., 2016; Wasfy et al., 2017; Zuckerman et al., 2016). During a period of convalescence that may last days, weeks, or even months, patients must manage new medications, adopt lifestyle changes, and perform appropriate outpatient follow-up. Increasingly, evidence shows that during the time after hospital discharge, the patient is prone to medical errors, adverse events, and re-hospitalizations. Half of the patients experience a medical error after discharge, usually one related to medication continuity, follow-up of test results, or completion of diagnostic work-ups. Approximately 20% of patients suffer an AE within 3 weeks of discharge. Studies have suggested that most errors and AEs could be prevented or ameliorated through better communication and coordination of care (Jenq et al., 2016; Wasfy et al., 2017; Zuckerman et al., 2016).

From the patient's perspective, hospital discharge may come as a surprise, with little or no warning (Jenq et al., 2016). The discharge itself is often a rushed event in which the physician, nurse, and other staff provide verbal and written instructions, which may or may not be consistent with one another. When this counseling occurs is more likely to be dictated by the physician's rounding schedule or the hospital's desire to clear the bed than by the availability of caregivers to participate in the discussion. Patients who

leave the hospital with a new diagnosis or new medications are asked to change their established routine, which may also pose difficulties.

For hospital-based physicians, the barriers to quality discharge care are numerous. Preparing a patient for hospital discharge takes time, especially when it includes performing medication reconciliation, patient education, and discharge summary documentation (Jenq et al., 2016; Wasfy et al., 2017; Zuckerman et al., 2016). Although physicians may bill for a higher level of reimbursement, even if spending more than 30 minutes on a discharge, complex patients may require an hour or more. These patients are the ones most likely to experience a medical error or adverse event after discharge, so their preparation is the most critical. Moreover, most physicians have not received specific training or feedback on how to best discharge a patient (Kripalani, 2007). It differs from the emphasis placed on the admitting history and physical examination throughout medical education. A good hospital discharge transition is just as important as a thorough admission evaluation (Kripalani, 2007).

One toolkit designed to reduce readmission rates is the Re-Engineered Discharge (RED) toolkit. This strategy can be utilized as an evidenced-based scheme with the three-fold aim of ensuring that patients understand how to care for themselves, reducing emergency visits and readmissions, and improving patient satisfaction. The implementation of the RED may take at least six months. The RED was prepared by the Boston University Medical Center, in cooperation with the Agency for Health Research and Quality (AHRQ). The RED has 12 components, which are (a) ascertain the need for and obtain language assistance, (b) make appointments for follow-up care, (c) plan for

the follow-up of results from tests or labs that are pending at discharge, (d) organize post-discharge outpatient services and medical equipment, (e) identify the correct medicines and a plan for the patient to obtain them, (f) reconcile the discharge plan with national guidelines, (g) teach a written discharge plan the patient can understand, (h) Educate the patient about his/her diagnosis and medicines, (i) review with the patient what to do if a problem arises, (j) assess the degree of the patient's understanding of the discharge plan, (k) expedite transmission of the discharge summary to clinicians accepting care of the patient, and (l) provide telephone reinforcement of the discharge plan, described by Jack et al. (2013).

The RED likewise identified the readmission rate as the key indicator to measure the success of RED. It also suggested how readmission rates should be analyzed by asking what readmission rates are, what are the readmission rates according to specialty and diagnosis; how the hospital's readmission rates fare with other hospitals in the region; how to identify target populations; and, how to determine the success of interventions. As for implementing RED, several specific indicators could be used depending on the context specific to the hospital. These indicators should be meaningful, credible, feasible, and timely. Furthermore, it should measure whether RED was delivered to target patients, whether the correct information was being collected, whether evidence-based care was delivered, whether appropriate follow-up care was being arranged, whether patients were being prepared for discharge, and whether patients received post-discharge care (Jack et al., 2013).

Readmission Reduction Program as a Strategy to Reduce Hospital Readmissions

In the United States, the Center for Medicare and Medicaid Innovation Services (2016) launched the Hospital Readmissions Reduction Program (HRRP), which began authorities penalizing hospitals with high rates of readmissions for acute myocardial infarction, heart failure, and pneumonia in 2012 (Brown, 2015; Horine, 2018; Jenq et al., 2016). Penalties for high rates of hospital readmission have been consistently increasing over the years due to this program (Horine, 2018). Penalties are projected to reach $528 million in 2018, which is 25% higher than in 2016 (Horine, 2018). A high amount of penalties draw leadership attention to support efforts to cut readmission rates in hospitals (Wang, Demerouti, & Le Blanc, 2017). As a result, most hospitals have outlined specific interventions based on best practices that would move them toward their goal of reducing hospital readmissions.

According to Brown (2015), the strategies include medication reconciliation, post-discharge appointments, and post-discharge phone calls. Medication reconciliation is a way in which a physician reviews a list of the patient's medications with explicit instructions to the patient about how to properly take them within 48 hours of discharge (Brown, 2015). Post-discharge appointments are a way nurses schedule patients for follow-up care before being discharged; when possible, patients at high risk for readmission are scheduled within seven days of discharge (Brown, 2015). Post-discharge phone calls, a member from the care team calls patients to assess their condition and answer any questions within a specified timeframe following discharge (Brown, 2015). The accreditation process could make an impact on reducing readmissions for the

hospital rather than penalizing hospitals (Horine, 2018). If the accreditation process would be meaningful, it must have the means for developing more consistent processes and moving more toward a proactive and preventive stance as opposed to a corrective one.

Hospital administrators face numerous challenges on the quality every day that affects readmission rates: these include increasing maternal mortality and morbidity; hospital-acquired infections, the need to provide better post-discharge communications with patients and their family members to avoid relapses, and more judicious pain management planning to avoid opioid dependency issues; hospitals are also being dinged on patient satisfaction. Moreover, patients obviously want to receive the best care at the hospital, but hospitals also must ensure patients receive that care from in-network providers to avoid large out-of-network charges (Horine, 2018). The major factor associated with preventable readmissions is lack of communication with patients, which is closely followed by a lack of coordinated efforts among caregivers, and little engagement of the patient, their family, or personal caregivers (Horine, 2018). An effective quality management system relies heavily on improving communication at all levels of the organization and many accreditation processes provide this. A five-hospital, 992-bed system in Southwest Missouri, is a clear example of how an accreditation such as ISO 9001 can be effective in reducing readmissions (Horine, 2018). The hospital in Southwest Missouri embarked on a patient-centered process to deliver the right care in the right place by harnessing community partners and services to substantially reduce its hospital readmission rates (Horine, 2018). The most successful interventions

implemented were related to communication among caregivers, providers, and patients

and include: follow-up discharge phone calls to ensure a smooth transition to the next

provider of care, collaboration with a federally qualified mental health center to discharge

medically stable detox patients, collaboration with a federally qualified health center to

discharge patients from the emergency department and sent directly to an on-campus

medical home clinic that provides both primary care and mental healthcare, and

embedded social workers in the emergency department to assist with arranging a variety

of community services to communicate with the patients, their families, and others.

During fiscal 2017, the hospital's readmission rate had dropped to 9.3%, an overall

reduction of about 15% (Horine, 2018). Having better communication will prevent

avoidable readmissions to the hospital, developing a more effective quality management

system to have better engagement from all the parties involved appears to be a step in the

right direction. The added benefit to an effective quality management system is that this

will better enable the hospital to sustain the improvements and changes which made an

impact.

Preventing readmissions is a cornerstone of patient safety efforts. however, one

concern about nonpayment for readmissions is that many may not be preventable

(Auerbach et al., 2016). To determine whether readmissions were preventable, Auerbach

et al. (2016) conducted an observational study that investigated readmissions through

patient and physician surveys along with chart review. The authors determined that only

one-quarter of readmissions were preventable. Factors associated with potential

preventability were premature hospital discharge, insufficient communication with

outpatient providers, failure to discuss care goals, and emergency department decisions to readmit a patient who did not require a second inpatient stay (Wu & Hall, 2018). These results suggest that multiple interventions are needed to avert readmissions, and such efforts will have limited impact since most readmissions are not preventable.

Passage of the Patient Protection and Affordable Care Act (ACA) created the Medicare Hospital Readmissions Reduction Program (HRRP), which introduced the prospect of financially penalizing hospitals based on their previous performance. The performance was assessed on the basis of readmission rates within 30 days after hospitalizations for acute myocardial infarction, congestive heart failure, and pneumonia. This program represents one of several efforts to encourage provider organizations to enhance safety and value (Wasfy et al., 2017). Medicare has reported lower readmission rates since the passage of the law (Zuckerman et al., 2016). In the study of Wasfy et al. (2017), rates of hospital readmissions before and after the Centers for Medicare and Medicaid Services (CMS) enacted its nonpayment policy were examined in a pre-post-study. The program separated the hospitals into tiers of performance, considering hospitals with the lowest readmission rates to be the highest performers. The study found that across all levels of hospital performance, readmission rates for acute myocardial infarction, congestive heart failure, and pneumonia decreased after the Medicare Hospital Readmissions Reduction Program was introduced. Hospitals with the lowest performance prior to the nonpayment policy improved the most. These results are consistent with the study conducted by Jenq et al. (2016), which examined the efforts of an urban academic medical center. This study involved targeting only high-risk patients and providing them

with a personalized transitional care plan that included detailed medication reconciliation and follow-up phone calls, as well as linking them with community resources. Over 2 years, the readmission rate decreased from 21.5% to 19.5% in the intervention group and from 21.1% to 21.0% in the control population. This 9% relative reduction in readmissions is significant, though it translates to a number-needed-to-treat of 50 (to avoid 1 readmission), which is quite high for a resource-intensive intervention. Zuckerman et al. (2016) in their examination of how observation stay rates changed in parallel with readmission rates, found that readmissions decreased, consistent with the prior studies, and observation stays increased.

Patient Empowerment as a Strategy to Reduce Hospital Readmissions

In an article by Jenq et al. (2016), effective solutions in reducing readmission rates were discussed comprehensively. At the patient level, empowering individuals and families to participate in their discharge preparations is essential (Jenq et al., 2016). The effectiveness of patient empowerment has been demonstrated in a variety of outpatient contexts, but efforts that target hospital discharge are rare. An important model is the Care Transitions Intervention developed by Dr. Eric Coleman and his colleagues (Kripalani, 2007) which involved providing elders and their caregivers with a transition coach and empowering them to facilitate communication and other aspects of the care transition. Care transition intervention significantly reduced re-hospitalization rates and costs (Jenq et al., 2016). Hospital physicians will play a critical role in improving care transitions as physicians work in collaboration with nurses, pharmacists, discharge care coordinators, and other hospital personnel. One interesting approach is to set a discharge

appointment so that the patient and family can anticipate the date and time of discharge, and so that hospital staff can work toward this goal. Project RED (Re-Engineering Discharge) is an example of a multidisciplinary effort to revamp the whole process (Jackson, Shahsahebi, Wedlake, Tiffany, & DuBard, 2015). Through qualitative analysis, process mapping, root cause analysis, and other techniques, the Project RED developed 11 components for effective hospital discharge transitions. The following components are (a) educate the patient throughout the hospitalization; (b) organize and schedule post-discharge appointments; (c) give the patient a detailed written discharge plan, emphasizing the reasons for hospitalization, medical regimen instructions, aggravated condition recommendations, follow-up appointments and pending items, for example, undelivered test results; and (d) prepare and deliver a detailed discharge summary to the PCP; and (e) reinforce the discharge plan and provide troubleshooting by telephone 2 to 3 days after discharge. Jenq et al. (2016) mentioned other complementary recommendations about the content, format, and delivery of discharge communications. Hospital physicians should communicate with the patient on the day of discharge, and a detailed discharge summary should be delivered within one week (Kripalani, 2007). Discharge summaries should be structured with subheadings to organize and highlight the key information. Discharge summaries should include diagnoses, pertinent history and physical findings, dates of hospitalization, hospital course, results of procedures, consultant recommendations, information given to the patient and family, reconciled medication regimen, details of follow-up arrangements made, specific follow-up needs, and contact information for the hospital physician (Kripalani, 2007).

Hospitals should use information technology to facilitate the completion of discharge summaries by filling in information located elsewhere in the hospital record (Kripalani, 2007). Patients should receive a copy of the summary when possible and to bring it to their follow-up visit (Wasfy et al., 2017; Zuckerman et al., 2016). In addition, the most powerful efforts to improve patient discharge and transitions of care will have the full support of hospitals and health systems (Wasfy et al., 2017). Hospitals may need to weigh competing demands, such as a desire to discharge patients early in the day, versus discharging patients at a time when family can be present for counseling. Additional personnel are required, not only to coordinate care in preparation for discharge, but also to follow up with patients after return home. Although it is likely that an investment in discharge planning and post-discharge support will be cost-effective, earlier research suggests that this may not always be the case. One of the most challenging aspects of improving care transitions will be to change the system so that hospital staff may begin working on discharge early in the hospitalization, to avoid a frenzy of activity on the final hospital day (Jenq et al., 2016; Wasfy et al., 2017; Zuckerman et al., 2016).

Optimizing Transitional Care as a Strategy to Reduce Hospital Readmissions

Reducing readmissions has been a national priority for payers, providers, and policymakers seeking to achieve the Institute for Healthcare Improvement Triple Aim objectives of improved health and better care at a lower cost. Boutwell et al. (2016) developed specific guidelines on reducing hospital readmissions for the Agency for Healthcare Research and Quality (AHRQ) to design and deliver whole-person transitional

care for Medicaid patients in the United States. A core competency of the improved delivery system is to manage care across settings and over time to avoid unnecessary acute-care utilization, including readmissions (Rahman, McHugh, Gozalo, Ackely, & Mor, 2017). To reduce readmission rate healthcare delivery system needs to develop the infrastructure, care teams, processes, and partnerships needed to succeed in the value-based payment environment in the United States (Boutwell et al., 2016).

In the past, demonstrations, grant funding, research, and large-scale improvement efforts have increasingly emphasized addressing social and behavioral needs in efforts to reduce admissions and readmissions: the social work-based model of transitional care, the allowance of budgeted resources to address social and logistical transitional care needs in demonstration models, investments in efforts to align and optimize social service resources to achieve cost-savings goals (Heider, Kniffin, & Rosenthal, 2016), and a proliferation in complex care management programs for high utilizers and other high-cost, high-risk patients. All of these models, incentives, and demonstrations hold central a key premise: identifying and effectively addressing behavioral health and social needs are essential to improving care and reducing costs (Boutwell et al., 2016). To help hospital-based readmission reduction, hospital managers must design and deliver transitional care to address patient needs such as clinical, behavioral, and social. This approach to transitional care is patient-centered, data-informed, evidence-based, and field-tested (Boutwell et al., 2016). The following are unique elements and strategies in reducing readmissions and improving whole-person transitional care: hospitals should remind staff that the discharge planning regulations apply to all patients; improved transitional care

expectations should apply to all, regardless of level of care, diagnosis, or readmission risk; behavioral health follow-up needs should be included as part of the discharge plan; hospitals must arrange for, not just refer to, posthospital services; hospitals must provide patients with data to inform choice of post-acute providers, and hospitals must follow up with high-risk patients after discharge (Boutwell et al., 2016). These expectations are best practices that will improve transitional care for all patients, but not limited to patients identified as being at high risk for readmission. These hospital practices should more comprehensively assess transitional care needs, incorporate patient and caregiver preferences, and be communicated clearly to patients, caregivers, and receiving providers. In addition, a link between clinical and service follow-up, including making appointments, is a task of discharge planning for all patients (Boutwell et al., 2016). The innovations in health care delivery in response to avoiding readmission penalties, managing patients under shared savings, bundled payments, global budgets, and other arrangements continue to demonstrate new ways to manage patients effectively to reduce readmissions through higher quality care at lower costs. In summary, the major strategies in reducing patient readmissions according to AHRQ (Boutwell et al., 2016) are: (a) identify high-risk patients in real-time, the opportunity to effectively engage with high-risk patients, especially high utilizers, is when patients are onsite in the ED or hospital; That there are high-risk patient in our care is a unique asset that hospital providers and dedicated care teams should leverage; (b) attend to whole-person needs – all longitudinal programs, whether 30-day transitional care, 90-day bundles, or annual management in accountable care contracts, have learned that successfully avoiding readmissions requires

attending to social, behavioral, and clinical needs; (c) systematically screen for social needs screening and addressing health-related to social needs in health care delivery settings can promote improved care at lower total cost; (d) do not systematically exclude people with behavioral health needs and do not over medicalize complexity, the companion insight to addressing whole-person needs is to avoid the tendency to overmedicate the patients or deploy medical-type interventions to address nonmedical needs. Many high-risk patients travel through the health care system labeled as complex. To be sure, many patients at high risk of readmissions have numerous co-morbidities and have been prescribed complicated medication regimens. As experts look for the root causes of readmissions and the drivers of utilization, experts come to observe that complex patients have drivers of readmission that do not require more or better medical decision-making or doctoring. Rather, these patients require the skills of competing priorities, understanding the person in context, motivation, and engagement. These behavioral and social factors are often issues that traditional medical teams are underprepared or under-resourced to address, so we call them complex. Teams that are properly skilled and resourced to address these needs demonstrate that the teams can do so to great effect; (e) be flexible, transitional care and episode management teams should demonstrate creativity in responding to health-related social needs, personal support needs, and behavioral change management. Teams could rely on flexibility to have the discretion to address patients' pressing needs for additional material or human service resources. Flexing when needed is hard to regulate or legislate but appears to be a frequent feature of success; (f) try, try again – healthcare teams have learned that it may

take two, three, or more attempts at successfully engaging a high-risk patient in the services offered, whether it is linking to new resources, intensive care coordination, rather than putting an individual patient in the "refused" category, administrators have adopted the approach so that administrators will continue to ask and attempt to engage each time the patient re-presents to the facility; (g) frame services as continuation of care – teams have found that target population patients may not respond as well as one might expect to be introduced to a new program or special team. Healthcare teams are finding much better success by simply taking a continuation of care approach and offering the patient whatever services the teams have; (h) select the right people for the job – almost all teams state that participants have the right people with the right combination of skills to focus on these high-risk target populations.

Teams report that high-risk and high-utilizer work requires a willingness to be very flexible within one's scope of practice and requires excellent patient-facing engagement skills as well as comfort working as part of a team; to professionally manage implementation. When finances are on the line, such as for accountable care organizations and bundled payments, there is dedicated, professional management. At a minimum, successful programs have a dedicated program manager. Often, but not always, that dedicated program manager manages the program based on data-people eligible, patients served, key services delivered, and outcomes. Data inform continuous improvement until goals are achieved (Ngana, 2015).

There are a number of challenges facing patients, physicians, and health systems with regard to ensuring a high-quality discharge and care transition. But there are also

steps required to improve the current state of affairs. With health systems and regulatory agencies becoming more invested in the care transition, new and innovative approaches and broader use of strategies known to be successful are very promising.

Transition

The qualitative single case study design was the approach used for researching strategies of hospital administrators for reducing and managing hospital readmissions. In this section, the background of the problem is presented, including the specific business problem. Included are the purpose statement, nature of the study and conceptual framework. In addition, the research question, operational definitions, assumptions, limitations, and the delimitations of the study have been defined in the current study as well. The review of the academic and professional literature is a synthesis of the recent information on CAS and hospital readmissions. The literature review offers a breadth of varied perspectives and strategies to explain and respond to hospital readmissions. In Section 2, the research project is also presented which provide support for the methodology in addition to discussing the role of the researcher, participant selection, and ethical considerations. In Section 2, I summarize the research strategy to collect, analyze and present findings. The findings and discussion of the applications of professional practice are discussed in section 3, which included recommendations for action and the areas for further study.

Section 2: The Project

Purpose Statement

The purpose of this qualitative single case study was to explore strategies nonprofit hospital administrators use to reduce costs associated with hospital readmissions. The target population for this study consisted of four hospital administrators who have responsibility for overseeing the readmissions process located in Doha, Qatar. The implications for social change may include reduced readmissions, which reflects the improved quality of individual patient care while promoting population health and controlling healthcare costs.

Role of the Researcher

In qualitative research, the role of the researcher is to gain significant insights based on the responses of the study participants (Sutton & Austin, 2015). The researcher acts as the primary data gatherer using valid collection instruments to collect and analyze data (Fink, 2000). A researcher should ensure the objectivity of the research. The researcher can avoid research bias by maintaining an awareness of personal biases and potential ethical issues (Sanjari, Bahramnezhad, Fomani, Shoghi, & Cheraghi, 2014). Maintaining a neutral perspective when analyzing participants' responses is vital to enhancing research quality (Korstjens & Moser, 2017). To mitigate bias and to maintain a neutral perspective when analyzing data, I adhered to the interview protocol and performed member checking during interviews. I continued to collect data through individual interviews until the information became repetitive, at which point, the interview process reached saturation and ceased.

For this case study, the data I collected after receiving institutional review board (IRB) approval were organizational documents and interviews. According to Yin (2018), case study findings are likely to be more convincing and accurate if based on different sources of information. The selection of appropriate cases and triangulation are key features of case studies (Forero et al., 2018).

An interview protocol is a document consisting of the interview questions and any preparatory and concluding actions to establish consistent flow throughout the interviews. A protocol helps ensure each participant receives the same information and treatment before, during, and after the interview process (Castillo-Montoya, 2016). The interview protocol is crucial to the integrity of the research findings and hence, was given utmost attention. Researchers can use interview protocols to assure consistency when conducting semistructured interviews (Castillo-Montoya, 2016). An interview protocol was used (see Appendix A) as a basis for conducting semistructured interviews. I used follow-up questions as necessary. Interviews are guided conversations that are usually one of the most important sources of case study evidence (Yin, 2018). Before ending my data collection, I ensured that data saturation had been met on the selected topic.

Another primary responsibility of the researcher is to protect data collected from bias and breach of confidentiality (Sutton & Austin, 2015). To maintain the boundaries between research and practice, researchers must be aware of ethical

considerations when conducting research on any subject (Korstjens & Moser, 2017). I

used the *Belmont Report* as reference to understand the ethical considerations and

guidelines for researchers. The report identified three basic ethical principles for

research, including respect for individuals, beneficence, and justice (U.S. Department

of Health and Human Services, 2016). Respect for individuals requires that the

subjects be given the opportunity to choose what will or will not happen to them

(U.S. Department of Health and Human Services, 2016). Beneficence requires that

researchers treat the participants in an ethical manner not only by respecting their

decisions and protecting them from harm, but also by making efforts to secure their

well-being (U.S. Department of Health and Human Services, 2016). Justice requires

that there be fair procedures and outcomes in the selection of research subjects (U.S.

Department of Health and Human Services, 2016).

In addition, the *Belmont 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 conduct of the current study by obtaining informed

consent from all participants. These mechanisms, as outlined in the *Belmont Report,*

were clearly articulated to participants through the process of informed consent and

all applicable ethical principles were applied. Pertinent to this project, I did not or do

not have any direct business relationship with the organization or the participants. I

have no previous connection to the specific investigation topic or research area. I

ensured that my working relationship with the organization and participants did not

influence their responses by using the interview protocol to ensure consistency in the

collection of data. Also, member checking aided in building trustworthiness in the

collection process. I made sure that the interview protocol was followed, and I

performed member checking with the participants to strengthen the trustworthiness

of the findings of the research topic.

Participants

In fulfilling the objective of this study, which was to identify effective strategies

in reducing and preventing patient readmissions, I explored significant insights from

four administrators of a-well-established general hospital in Qatar known for its

comprehensive and high-quality care across all patient populations. In a case study,

one of the most important tasks is to identify appropriate participants (Moser &

Korstjens, 2018). Selected participants should be those who can best inform the

research questions and enhance understanding of the topic under study (Moser &

Korstjens, 2018). Hence, four targeted participants were selected based on their

extensive experience in terms of implementing quality improvement methodologies

and business strategies, particularly in managing hospital readmissions. The eligibility

criteria to participate was outlined in the consent form given to the four participants.

With four interviewees offering potentially different perspectives on managing and

controlling hospital readmissions, in addition to the review of related archival hospital records, reviews from these sources served as the basis for data analysis.

The criteria for the selection of participants included those who have been in the healthcare industry for at least 5 years and in managerial positions for at least 3 years. According to Yin (2018), having more than two cases or participants strengthens the rigor and trustworthiness of the research. As an administrator of a major general hospital whose foremost responsibility is to ensure quality healthcare and patient safety, I used my professional network in Qatar's healthcare industry in connecting with the target participants. To gain access to the participants, I contacted a colleague in the facility to help identify eligible participants. To avoid personal bias and conflict of interest, close colleagues, friends, and family were considered ineligible participants. After identifying the participants, I ensured that the eligible participants agreed to participate in the study by obtaining their informed consent. I met each participant in person to explain the purpose of the study and the requirements of their participation and to answer any of the participants' questions. The participants were informed about the research timeframe, the proposed nature of their involvement, and the expected practical outcomes in minimizing hospital readmissions. Thereafter, the participants were asked to sign an informed consent form. According to Baškarada (2014), researchers need to reach an agreement with

the case study participants regarding any limitations on the disclosure of data and identities. I reached this type of agreement with the participants before beginning the formal interview.

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 that the participants will answer the interview questions honestly (Moser & Korstjens, 2018). Additionally, having a positive working relationship with the participants can help resolve any tensions or problems that may arise during the process (Moser & Korstjens, 2018). To ensure participants are comfortable during the process, I explained the main objective of my study prior to conducting the interviews. In addition, I discussed the nature and extent of their participation and also communicated and answered any questions or concerns.

<div align="center">**Research Method and Design**</div>

Research Method

Qualitative researchers seek to explore phenomena where no previous understanding may exist; thus, the process may expose new insights and practices (Yin, 2018). In addition, this systematic inquiry into a phenomenon includes, but is not limited to, how people experience aspects of their lives, how individuals and/or groups behave,

how organizations function, and how interactions shape relationships (Teherani, Martimianakis, Stenfors-Hayes, Wadhawa, & Varpio, 2015). The qualitative method of research was applied because exploring the answers to this study's research question required a systematic inquiry into how organizational leaders and systems function in addressing hospital readmissions. Also, my goal was to examine why such events occurred, what happened, and what those events meant to the participants in this study relative to the subject matter in question. Qualitative research starts from a fundamentally different set of beliefs or paradigms than those that underpin quantitative research (Teherani et al., 2015). Some researchers use quantitative methods to examine the relationships or differences among variables (Christenson & Gutierrez, 2016); however, this was not the purpose of the study; therefore, the quantitative method was not appropriate for this study. A mixed method approach requires a combination of quantitative and qualitative in the same study (Yardley & Bishop, 2015). The inclusion of the quantitative method renders the mixed method unsuitable for this doctoral study.

Research Design

A qualitative case study design was used to answer the research question. Using a case study enables researchers to use various forms of data to explore and understand a phenomenon (Yin, 2018). I used the case study design to obtain information about strategies within a narrow scope to understand a phenomenon. Case studies draw on the ability of the qualitative researcher to extract depth and meaning in context by evaluating bounded systems of action (Yin, 2018); thus, this particular qualitative research method was appropriate for this research where I explored how an organization set up and

facilitated an integrated system in managing hospital readmissions. In some studies,

ethnography is used to explore the customs, culture, beliefs, behaviors, or other social

traditions of a population (Keutel et al., 2014). I did not use the ethnographic approach

because studying groups' cultural behavior, customs or beliefs would not address the

research question. Researchers use phenomenological design to capture meanings derived

from the lived experiences of participants (Reiter et al., 2011). I did not use a

phenomenological designed because I don't want to limit the investigation to the

meanings of participants' lived experiences. The ensure trustworthiness in case study

research, interviews continue until saturation is reached. Saturation is the point when the

addition of new data provides no new information, and the interview process stops (Fusch

& Ness, 2015; Marshall & Rossman, 2016).

Population and Sampling

The population for this study was drawn from a well-established general hospital

in Qatar known for its comprehensive and high-quality care across all patient

populations. In a case study, the subjects sampled must inform important facets and

perspectives related to the discourse being studied (Moser & Korstjens, 2017). In this

research, I explored significant insights from four administrators who I purposefully

selected based on their extensive experience in terms of implementing quality

improvement methodologies and business strategies in managing hospital readmissions.

The determination of an appropriate sample size is an important part of a qualitative

research design (Rosenthal, 2016). According to Moser and Korstjens (2017), the sample

size is sufficient when additional interviews or focus groups do not result in the

identification of new concepts, signaling data saturation. Having at least four participants is advantageous since collecting evidence from multiple sources to ensure rigorous research quality is an important facet of a case study (Yin, 2018); hence, I decided to interview four administrators, face to face, in a location suited to each participant.

Subject selection in qualitative research is purposeful; participants are selected who can best inform the research questions and enhance understanding of the phenomenon under study (Benoot, Hannes, & Bilsen, 2016). I used purposive sampling, which is a traditional sampling method for exploring cases with sufficient information related to the study phenomenon (Palinkas et al., 2015). This sampling method provided me an opportunity to include new aspects and perspectives to the study such that the outcome aligns with the research purpose.

Establishing eligibility criteria is a fundamental aspect of a qualitative research study (Moser & Korstjens, 2018). The eligibility criteria for the population sample included (a) being a hospital administrator in an administrative management position, (b) having at least 3 years of experience in the current or similar position, (c) having at least 5 years' experience in the healthcare industry, and (d) being willing to partake in a digital audio-recorded interview. I used these criteria to ensure that participants had an in-depth understanding of hospital readmissions and to eliminate potential participants who would not be able to assist in answering the research question.

When conducting qualitative studies, researchers need to be aware of the interview setting. 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 (Moser & Korstjens, 2018). I conducted a face-to-face interview in a conference room in the hospital for approximately 45 minutes. I used a digital recorder to record each interview.

Ethical Research

Ethical considerations are important in every research method involving human subjects. Ethics, however, take on added significance in a case-centered study where researchers often work closely with research participants over a period of time and frequently in the face-to-face mode, where researcher-participant relationships play an important role in the research outcomes (Roller & Lavrakas, 2015). Since this is a case study, the possibility of inadvertently exposing participants' identities without their permission runs high unless preventive measures are taken (Roller & Lavrakas, 2015). This is why the informed consent form, as well as approval from the IRB, was critical in this research.

Prior to actual data collection, I obtained approval from the CEO of the hospital the IRB at Walden University (IRB No. 05-24-19-0722869). Once I obtained these approvals, I began the data collection process. I secured informed consent forms from all the target participants. Prior to conducting interviews, I met with each participant in their preferred professional setting to have them sign the informed consent form and then provided them with a copy. This informed consent form included the disclosure of the various aspects of the research, emphasizing the voluntary component, promising to keep them and their information safe, and paying particular attention to effectively

communicating the confidential nature of the research while taking extra precautions to ensure their right to privacy. In addition, to further protect the rights of the target participants, I communicated that the recorded interviews and other collected data will be safely and privately stored for no less than 5 years and that only I will have access to the information. The electronic data has been password protected, and physical data is in a locked storage file in personal dwelling. After 5 years, the content, both electronic and physical, will be destroyed. All printed documents will be shredded and disposed of, and all computer files will be deleted permanently using a data shredding software like Killdisk. In addition, I kept all the identities of all participants in the current study private and did not hold discussions with the participants in public areas. I conducted interviews in a see-through conference room to ensure their safety while also ensuring the privacy of the conversations.

Participants could withdraw from the project without experiencing any negative consequences (Korstjens & Moser, 2017). I made sure that the target participants were well informed about their right to withdraw their participation from the conduct of the research without penalty at any time. The participants were informed about the right to withdraw from the study by providing a signed letter of withdrawal. A copy of the withdrawal request would be given to the participant. If a participant withdrew, I would have removed all of the participant contributions from the study as required, but would continue to store the data along with all data in a locked cabinet, marked for destruction after 5 years following the study. However, no participants opted to withdraw from the study. No incentives were provided to participants to be part of the study.

Data Collection Instruments

In a qualitative study, the researcher is considered a research instrument because the researcher can collect rich data, to conduct in-depth interviews, to reflect on the meaning of observation and interview data, and to interpret the philosophical underpinning of the research (Moser & Korstjens, 2017). I used an interview protocol (See Appendix A) during the interviews, to ensure consistency of questions and equal treatment to all participants throughout the interview process.

The data collection process included face-to-face interviews and a review of hospital documents. Other data were from the facility's Health Information Management Office, and included archival records and literature related to hospital readmissions drawn from various healthcare journals. Retrieval of data sources like hospital reports were essential to further support the findings which emerged from the interviews. In this study, data sources from hospital documents included monthly data on the percentage of discharge before the target period in the following departments: pediatrics, obstetrics and gynecology, surgery, burns, medicine, and the intensive care unit. The semistructured interview with open-ended questions enabled me to explore the study topic freely, therefore allowing for a rich set of data.

During member checking, the researcher should ensure the accurate capture of the thoughts and experiences during the interview (Birt, Scott, Cavers, Campbell, & Walter, 2016). To enhance trustworthiness in data collection, I used member checking to ensure the accuracy of my interpretation of the interview data before transcribing the data. To member check, I held a second interview with each participant in an agreed-upon location

and reviewed each response to questions by providing their statements and ensuring I recorded these statements accurately. The participant agreed or disagreed with my interpretation of the interview and corrected any misunderstanding. All participants verified the interview data was accurately interpreted. I applied member checking to enhance trustworthiness.

Data Collection Technique

Whatever philosophical standpoint the researcher is taking and whatever the data collection method, the process will involve the generation of data (Sutton & Austin, 2015). According to Yazan (2015) and Moser and Korstjens (2018), qualitative case study researchers use three data collection techniques: conducting semistructured interviews, observing, and analyzing documents. Other data were from the facility's Health Information Management Office, and included archival records and literature related to hospital readmissions drawn from various healthcare journals. 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, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014). However, conducting semistructured interviews may limit the number of participants because of my potential time constraints for processing and transcribing the data (Carter et al., 2014). Researchers often collect documents, observations, and create field notes to develop the themes from all collected data (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 documents making such data difficult for researchers to obtain (Moser & Korstjens, 2018).

Conducting effective interviews, being a careful observer, and mining data from documents are essential techniques and procedures that researchers need to become effective users of the collection tools (Moser & Korstjens, 2018). For this research, four hospital administrators from a nonprofit hospital were interviewed to explore their strategies in reducing costs incurred from patient readmissions. The data sources of the current study included documents and interviews. According to Merriam and Tisdell (2017), observing critical elements including the physical setting, participants, activities and interactions, conversation, subtle factors, and the interviewee's behavior during data collection is recommended. In addition, field notes to complement the interviews and record subtle nuances thoroughly were maintained. Accordingly, field notes allowed me to maintain and comment upon impressions, environmental contexts, behaviors, and nonverbal cues that might not have been adequately captured through the audio-recording. Moreover, these can provide important context to the interpretation of audio-recorded data and can help remind a researcher of subtle nuances that may be important during data analysis (Sutton & Austin, 2015).

Specifically, the data collection technique consisted of semistructured, face-to-face interviews. The interviews took place in either at the unit's conference rooms or lounge during break time or after duty hours, ensuring each interview suited participant comfort and time limits. I recorded the interviews using the Sony corporations' Digital Voice Recorder ICD-PX333, which is battery-operated with MicroSD for audio storage. After completing the interviews, the audio recordings were transcribed. When the participants agreed to take part in the study, I initially emailed the interview questions together with

the informed consent form to alleviate potential participant concerns regarding interview preparation. Prior to the interviews, I provided the participants with a written copy of the questions and the consent form. I also informed the participants of their right to answer all, some, or none of the questions. Further, I provided the option to withdraw from the study should they wish to at any time. No participants requested to withdraw from the study. Some researchers apply member checking to ensure the accuracy of each interview by reviewing each response with the participant and ensure my interpretation of their response is as intended; I ensured the accuracy of my interpretation of information gathered with each participant, and found my interpretation of the data collected through the interviews was accurate.

Data Organization Techniques

Data management is a challenging, integral, and vital part of qualitative research and crucial to ensuring successful studies (Sutton & Austin, 2015). Being able to organize qualitative data was essential because the current study generated thousands of words. Maintaining the organization of data throughout the qualitative process increases the reliability of the study (Yin, 2018). For this, I used an Excel spreadsheet containing the date of the interview, the pseudonym representing the participant, data from the recorded interviews, and information from the documentation gathered from the hospital. Hand-written field notes that captured subtle nuances, such as sighs and facial expressions, were incorporated into the data on the spreadsheet. By having the data in one location, I was able to organize the data in such a manner that it was easily accessible. In addition, I kept all the research data from the recorded interviews and the electronic and

hand-written field notes secured through on my password-protected computer, as well as using cloud storage that provided a back-up system to secure information. With the use of Sony corporations' Digital Voice Recorder ICD-PX333, I documented and transcribed the interview data, then stored the electronic documents in my password protected hard drive with cloud storage back-up. This ensured that all soft copies of the documents related to this research were protected by passwords. I will keep the data for 5 years on a flash drive stored in a locked cabinet that only I will have access to, in accordance with Walden University policy on retention of research data.

Data Analysis

In this study, I used methodological triangulation, which is a data analysis process to compare multiple types of data. The responses from the semistructured, open-ended interview questions, which were the primary data source, as well as exploring documents, helped in answering the central research question. With four interviewees offering potentially different perspectives on managing and controlling hospital readmissions in addition to the review of related hospital documents, methodological triangulation from these sources formed the base for the data analysis.

The data analysis process in this case study research included coding the interview data and document, clustering common trends in the findings, and generating themes aligning with the central research question and conceptual framework. The interviews were fully and carefully reviewed prior to coding. When reviewing the transcript and in generating a preliminary code list, I assigned codes that helped identify and generate key ideas. I applied the following systematic approach to generating themes (a) read through

the transcript completely; (b) read through and highlight points made by the subjects that appeared to be important or significant (first-order concepts)—essentially anything I determined as potentially revealing; (c) focused on the highlighted sections and assigning a word or phrase to move toward a theme, the code list identified earlier notes with assigned words or phrases; (d) reviewed the codes identified and drew key ideas into related combinations or groupings; (e) reviewed the preliminary groupings or themes and develop aggregate dimensions; and (f) completed a final review revealing aggregate dimensions followed the six-step process outlined above in combination with time for reflection and ensured reflecting accurately the information based on the data gathered.

I used traditional text analysis in analyzing both the interview and documentary data, which did not require specialized software. I took caution in the data analysis as I was fully aware of the limitations of the traditional approach, including a tendency for incorrect data interpretation by coders, the time required to code data, and a tendency to overuse the miscellaneous category. Once I completed the coding, I sought key ideas emerging from the interviews, field notes, and relevant documentary artifacts to formulate categories and themes. I explored the most recently published studies related to patient care, and the conceptual framework used, to confirm the themes and incorporated the findings in the study.

Reliability and Validity

Reliability

A case study protocol provides the needed structure to enhance reliability in research (Yin, 2018). Reliability ensures the possibility of replicating a study and

demonstrating that the same results can be obtained by repeating the data collection procedure (Baškarada, 2014; Leung, 2015; Marques, Camacho, & Alcantara, 2015).

Therefore, I implicitly followed specific data collection and data management procedures inherent to this research which included following an interview protocol to ensure each interview was conducted the same way, and I member checked each interviewee data to ensure my interpretation of the data was accurate. Strategies to ensure the reliability of a case study included using an interview protocol to conduct interviews, and a panel to guide and review the completed investigation and final write up of the study (Anney, 2014). An interview protocol enhanced consistent and repeatable steps that guided the entire research process, including making initial contact with participants, setting up interviews, gaining consent, conducting interviews, and member checking.

Validity

There are three criteria in evaluating the trustworthiness of qualitative research (a) confirmability, (b) credibility, and (c) transferability (Guba, 1981). Confirmability refers to the degree to which the findings of the current study, aligns with other studies. The findings of the study are confirmable through the use of several strategies including the use of a reflective journal and audit trail, careful selection of interview questions, and the use of an interview protocol. Steps were be taken by me to ensure that the data collected were the result of the experiences and ideas of the participants rather than my preferences. To reduce personal bias, several strategies were applied including the use of an interview protocol, triangulation, member checking, reaching data saturation, careful construction of the interview questions, and audit trail.

Credibility refers to the confidence the researcher has in the findings from the perspective of the participant (Forero et al., 2018). Credibility is related to the data analysis phase, and its assessment consists of ensuring that the analysis results are supported by the ability to reflect the phenomenon studied (Marques et al., 2015). In this study, credibility was established by ensuring the data collection reached saturation, using member checking, methodological triangulation, guiding the study with an interview protocol, and creating an audit trail to document my research approach. Employing multiple sources of evidence can contribute to credibility by providing multiple measures of the same phenomenon (Baškarada, 2014). Member checking enhances the accuracy of the data collected during interviews. Methodological triangulation ensures that information from more than one source supports the findings of research, and the interview protocol enhances consistency and overall trustworthiness of research by ensuring standardized approaches throughout the data collection, analysis, and storage processes.

Transferability refers to the degree to which research findings can be applied to a different setting or context (Forero et al., 2018). The results of this study may be transferable to similar hospital settings undergoing similar challenges with readmissions, in terms of utilizing the strategies derived by the participants in this study. However, transferability is enhanced through the establishment of an audit trail. I recorded all research activities in a reflective journal to create a trail to assist researchers in duplicating the research techniques.

Transition and Summary

Section 2 included a detailed discussion of the different stages of the research project. In this section, the researcher explained the purpose of the study, the role of the researcher, participants and population, the research design, and methods. Furthermore, discussed are the data collection instruments, techniques, and data analysis. After the conduct of data collection, Section 3 includes the presentation of the findings, discussion of the application to business practice, the implication for change, recommendations for future research, and summative conclusions.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative single case study was to explore the strategies used by hospital administrators to reduce costs associated with readmissions. Themes on the strategies were derived from interviews and hospital documentation related to readmissions. The data were collected from the interviews of four hospital administrators along with documents and records from the hospital's Health Information Management Office after the IRB approval was provided on May 2, 2019. From the Health Information Management Office, records showing readmission rates from January 2018 to April 2019 and discharge rates from January 2018 to March 2019 were collected. My intent was to add existing numerical data about patients' discharge to substantiate my study findings about readmissions. Data sources from the facility showed there was a substantial drop of readmission rate from 35% in June 2018 to 10% in July 2018. The lowest recorded readmission rates were in February 2019 and April 2019, which were 4% and 6%, respectively. In the interviews, the participants were also aware of the significant costs associated with hospital readmissions. The findings of this study provided strategies to improve the quality of individual patient care, reducing readmissions and minimizing healthcare costs as well as helping meet the target of reducing 30-day readmissions by 25% by 2022.

Presentation of the Findings

Following the interviews with four hospital administrators and review of relevant documentation, I identified three strategies implemented by the administrators at a

nonprofit hospital in Qatar to reduce costs associated with hospital readmissions. Numerical data and data trends were obtained from hospital records after seeking approval from the hospital administrators.

I interviewed four successful hospital administrators and followed the interview protocol to ensure consistency. In addition, I reviewed hospital documents from the Health Information Management Office of the hospital after receiving IRB approval. The interviews and document reviews occurred after request for data gathering were approved by the hospital administrators. The documents reviewed were monthly data on the percentage of discharge from January 2018 to April 2019. The hospital has six departments which were the setting of this study. Understanding that procedures and patient outcomes may vary between departments, all six departments were included to conduct a thorough investigation of readmission issues. The departments included were pediatrics, obstetrics and gynecology, surgery, burns, medicine, and intensive care unit. This supplemented the qualitative interviews and helped to provide a deeper understanding of the scope of the phenomenon.

Trends in Discharge Before the Target Time and Readmission Rates

Among the various hospital departments, the pediatrics department consistently had the highest percentage of discharge before the target time, whereas, the medicine department mostly had the lowest percentage of discharge before the target time (see Figure 1). The department with the most changing trends in the percentage of discharge before target time was the burn department with its proportion of discharge before target time ranging from a minimum of 15% in April 2018, to a maximum of 61% in February

2019. Although there are no distinct trends in percentage of discharge time for each

hospital department, the number of readmitted patients and the readmission rates have

decreased significantly between the first half of 2018 and the latter half of 2018 and

beyond. In the first half of 2018, the hospital had seen a minimum of 25 (in April 2018),

and a maximum of 41 (in February and March 2018) readmitted patients.
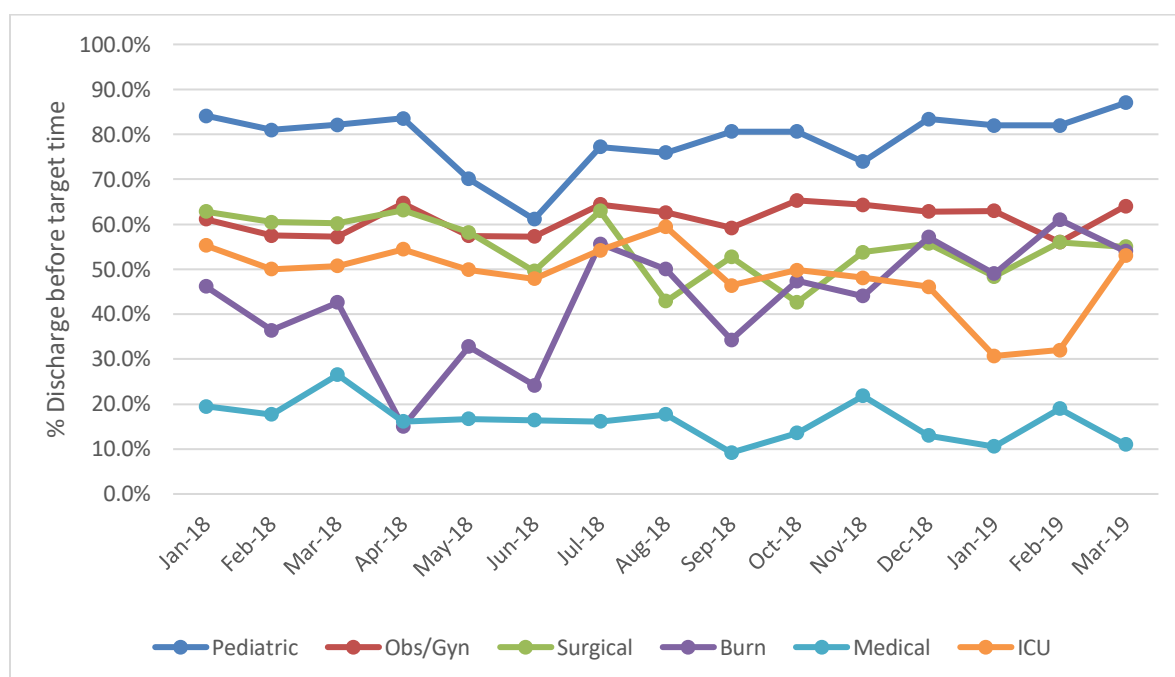
Figure 1. Monthly trends in percentage of discharge before target time among six
hospital departments, January 2018 to March 2019 (Source: Health Information
Management Office, May 2019).

However, from July 2018 to April 2019, the maximum number of

readmitted patients was only 15 (in August and November 2018), reaching a

minimum of five in February 2019. This decrease in the count is also mirrored

with a decrease in the rate of readmission; from double-figure rates in the first

half of 2018 to single-digit since July 2018 (see Figure 2). Previous studies

indicated that early patient discharge was not associated with readmissions

(Brooke et al., 2013; Fox & Kanarek, 1995). This conclusion can be made as there have been minimal changes in the trends of premature discharge. Based on the reports from the facility's Health Information Management Office, data showed that the readmission rates had decreased tremendously throughout the observation period. For instance, the readmission rates were high as 42% in both February and March 2018 but reduced to as low as 4% in February 2019.
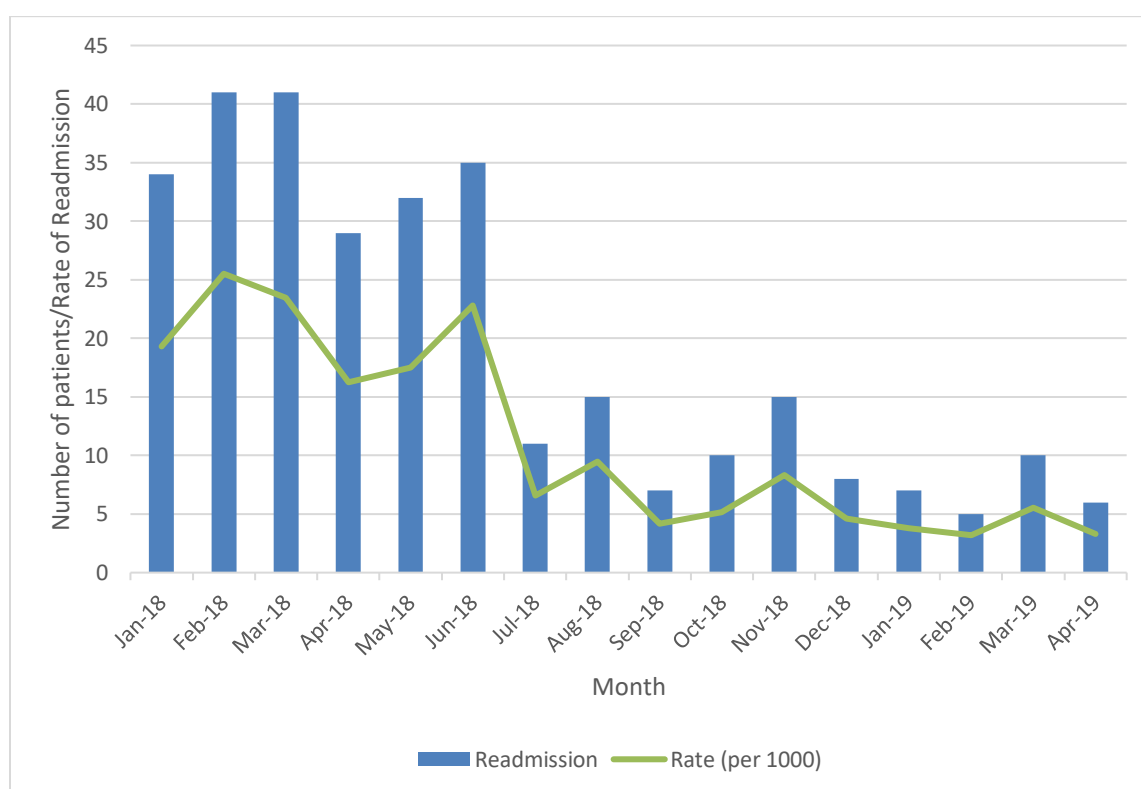
Figure 2. Monthly trends in number of and rate of readmission (per 1,000) in a Qatari hospital, January 2018 to April 2019 (Source: Health Information Management Office, May 2019).

Strategies to Minimize Readmission

The overarching research question is, what strategies do nonprofit hospital administrators use to reduce costs associated with hospital readmissions? Data

were collected from interviews and documentation. Other data were from the facility's Health Information Management Office, and included archival records and literature related to hospital readmissions drawn from various healthcare journals. I identified the following strategies used by hospital administrators to reduce readmissions: (a) discharge planning and patient education, (b) medication reconciliation, and (c) having an effective follow-up appointment system.

Theme 1: Discharge Plan and Patient Education

Evidence from the literature. The first theme included both a discharge plan and patient education. Both patient education, planning for outpatient appointments, and telephone follow-up by clerical or nursing staff were shown to have successfully reduced readmission rates for patients discharged to home according to Kripalani, Theobald, Anctil, and Vasilevskis (2014). Aside from other recommended strategies. Kripalani et al. (2014) mentioned that the strategies must include multiple components to effectively reduce readmissions. Mitchell et al. (2016) introduced the Re-Engineered Discharge (RED) program to decrease hospital readmission at hospitals. The RED program is comprised of 12 components which included discharge planning and patient teaching (Mitchell et al., 2016). Client teaching, for instance, included teaching patients a written discharge plan in terms that clients can understand (Mitchell et al., 2016). Education should also be included as it relates to the clients' diagnosis and medicines. The discharge plan also included telephone reinforcement and expediting the transmission of the discharge summary to patients (Mitchell et al., 2016). Regarding RED, Mitchell et al. (2016) found wide variability in the fidelity of the interventions, engaged leadership and

multidisciplinary implementation teams as keys to success and some challenges such as timely follow-up appointments, transmitting discharge summaries to outpatient clinicians, and leveraging information technology. The RED showed improvement in 30-day readmission rates (Mitchell et al., 2016).

Evidence from the conceptual framework. The CAS model can be applied to understanding uncertainties in clinical systems (Penney et al., 2018). The model suggested that interventions are successful if these are corresponding with the uncertainties which people encounter in the delivery of care (Penney et al., 2018). According to Penney et al., the CAS model can be applied to understanding uncertainties in clinical systems. Penney et al. added that CAS interventions are successful if the interventions correspond with the uncertainties which people encounter in the delivery of care. The uncertainties can be resolved through education and executing well-planned interventions. Hence, understanding the readmissions as a phenomenon helped administrators implement measures to reduce its occurrence. If administrators cannot decipher readmissions and the associated factors, readmissions will remain a critical concern for hospitals. No data in this theme comported with the BPQM.

Data Collected. Two out of the four participants emphasized the importance of a discharge plan and patient education. P3 stated, "The discharge plan has findings of the initial and discharge assessment, arrangement for possible follow-up appointments, and transition care like home medications." Also, P4 stated,

The discharge plan includes educating patients about their current state or condition. It also includes home medications with instructions about the dosage, frequency, timings, and specific requirements such as taking it on an empty stomach. The plan also includes patients' need to follow a prescribed diet. We also assess their self-care needs; whether assistance is needed in mobilizing or bathing; for example, we instruct the families on how to take care of their patients in the home setting. We also educate them on observing for recurring signs and symptoms and when to go back to the hospital, particularly to the emergency department. Secondly, we arrange them for a follow up appointment in the outpatient department. Some patients might require additional blood tests or diagnostics post-discharge. In this case, patients will still be monitored and will be called if there is a critical value result.

The preparation of a discharge plan involves a multidisciplinary team of nurses, physicians, and other allied health professionals, if needed, to ensure that patients have quality post-discharge care. Families or companions of the patient are also involved in the process to ensure a holistic experience in patient care even at home, thus minimizing re-admissions.

P2 stated,

We need to make sure that the patient and family know the plan of care from their own homes – knowing when to take their medications and when to come back to the hospital. The family should receive clear instructions on what to do if the patient is deteriorating. If the patient is having any signs or symptoms of the

same disease, patients should be instructed to come to the emergency room as
soon as possible.

In addition, P1 mentioned, "The clinical pharmacist will give instructions about the
patient's home medications. Some of these patients may be referred to the home health
care nurses in order to continue their treatment at home as necessary."

Furthermore, P2 expressed,

When the discharge education is not properly given or if the patient or family
does not understand very well what patients need to do once reaches home,
patients will most likely not follow the medication schedules which in turn will
make their recovery slower, sometimes making their condition worse than when
patients were discharged from the hospital, forcing them to return to the
emergency department within a few days.

Poor patient education can also lead to problems in medication instructions.

P4 stated,

Sometimes, it could be that there is an incomplete patient education given to the
patient before the patient was discharged, and that includes proper medicine
reconciliation. Or maybe the education was complete, but the patient didn't
understand the instructions completely because of the language barrier. The
unavailability of beds and pending patients in the emergency department may lead
to early discharges even if the patient is not yet one hundred percent ready to be
discharged but because we need the beds, we tend to compromise. The shortage
of staff can also be one of the barriers. One staff is assigned to so many patients

that it is very difficult to provide a comprehensive discharge education that the patient fully understands, especially when the staff is in so much pressure to discharge the patients as fast as possible.

In addition, P1 stated,

The normal delivery patients should stay in the hospital for 36 hours but we are discharging them before 24 hours. And from the pediatric inpatient I believe still there is also problem with shortage of staff. When you have a doctor in charge for eight patients for example, the service will be suboptimal. There will not be enough time for education and for patient care because majority of the time will be spent on documentation.

P2 stated,

One of the barriers is the shortage of staff. When there are not enough physicians to care for all the admitted patients, some patients might be discharged before patients are fit to be discharged. Another barrier that comes to mind is the bed crisis or unavailability of inpatient beds which creates a huge backlog in the emergency departments. To fix this problem, physicians will have to make more room in the inpatient. And how physicians are going to do that? By discharging patients before patients are fully prepared to, of course. Like I mentioned the language barrier can contribute to increased readmission because patients simply do not fully understand the plan of care when reaching their homes.

P1 stated,

We should have more protocols and guidelines for the effectiveness of the

treatment of the patient. If you effectively treat the patient, the patient will not

return back, and therefore, we will have more empty beds for other patients which

will have a positive impact on pending patients in the emergency department.

P2 stated,

We also introduced the admission-discharge lounge that helps us in two things:

First, it is to accommodate patients that are already discharged in the inpatient but

are not yet ready to leave the hospital for personal reasons. This helps us clear bed

spaces for the pending admissions in the emergency departments. Second, is by

transferring the patient in the admission-discharge lounge, we are reinforcing the

discharge instruction education to the patients and families because now patients

will be receiving it twice – one from the inpatient, and the other one from the

lounge. If patients and families did not understand any instruction during the first

time, both have another chance to clarify it or ask further questions. Another one

is the availability of home care as I already mentioned previously.

P4 stated,

There is an effort being done right now, wherein we encourage everyone to make

sure that the discharge plan is completed 24 hours prior to discharge. By doing so,

it frees the medical staff from the pressure and time to finish the plan on the day

of discharge itself. It also gives time for the patients to fully understand the

education made and gives them time to think of possible questions to ask the staff

regarding parts of the plan that patients and families didn't understand.

P1 stated,

> It is very important to always have a clinical audit. Currently, we are collecting
>
> data for 'readmission rate' and 'percentage discharge before target time'. We then
>
> present these data to the staff to inform them of the progress and then recollect
>
> the data again. So, this is very important, and we are doing this in neonatal
>
> intensive care unit. For the pediatric inpatient we will try to implement the same
>
> measures. And I believe that we need to invite the home health care again to
>
> increase the service of the home health care of the discharged patients.

P4 stated,

> We look at the hospital readmission rates obviously and we try to correlate it
>
> with the percent of patient discharge before the target time. We also look into
>
> different measures that may directly or indirectly influence the readmission rates
>
> as well as the effectiveness of our strategies. Examples of these measures are the
>
> percentage of discharge orders and plan done 24 hours prior to discharge, patient
>
> mortality rates and patient turnover rates.

In connection with what was said in the previous vignette, and in light of the

discharge plan's importance to prevent readmissions, there are also efforts to improve

how the discharge plan is prepared. Aside from interviews, data from the Health

Information Management Office indicated that the discharge rates from January 2018 to

March 2019 are fluctuating. The trends of discharge also depend on the specific units in

the hospitals. Dramatic drops occur in obstetrics/gynecology unit and burn units. The

pediatric unit, surgical unit, medical unit, and intensive care unit showed almost similar

trends in discharge rates whereby no dramatic drop nor increased were noticeable. All units' performance showed that the discharge rate on March 2018 was just almost similar to the baseline in January 2018.

Theme 2: Medication Reconciliation

     Evidence from the literature. Medication reconciliation has been cited by Kripalani et al. (2014) as one of the several strategies which can reduce readmission rates. However, the strategy alone can only have a better impact on readmissions rates if done together with other strategies like patient education and advanced care planning. Kripalani et al. (2014) added that hospitals need to direct resources and services to patients with a greater likelihood of readmissions. Zemaitis, Morris, Cabie, Abdelghany, and Lee (2016) evaluated the impact of pharmacy-facilitated medication reconciliation and patient education model with post-discharge follow-up on 30-day readmissions. Zemaitis et al. (2016) prospective and historical control methods included all patients admitted during a 6-month period to a unit with the highest 30-day readmission rate. Results showed that pharmacy-facilitated medication reconciliation and patient education of medicine had reduced 30-day readmission rates by 27% (Zemaitis et al., 2016). However, a study by Horine (2018) showed that medical reconciliation does not impact hospital admissions. Horine (2018) conducted a retrospective, cohort study which showed an interprofessional medication reconciliation process from admission to discharge affects emergency department visits and hospital readmissions within 30 days of discharge. Those who received the medication reconciliation bundle were grouped in the intervention group medication who received instructions from the pharmacists; whereas,

those in the control group received only partial medication reconciliation (Horine, 2018).

Moreover, results showed no differences in 30-day emergency department visits

and readmissions between the intervention group and the control group (Horine, 2018).

Evidence from the conceptual framework. The principles of BPQM

emphasized that the organization has to formulate strategies that would impact the system

(Lohrmann, & Reichert, 2013). Breyfogle (2015) stated the organization will be more

effective if there is a proper alignment of operations management methods specifically on

processing and quality assurance. The model suggests proper designing, modeling,

execution, monitoring and optimizing processes. Thus, the organization needs to plan,

collect and use existing data regarding the system processes and the organization's

performance (Kumar, 2018). Utilization of these data can help organizations perform

effective decision-making which can improve their performance (Mallur, 2015).

The applicability of the model with the theme can be tied by what Breyfogle

(2015) highlighted in BPQM. Breyfogle (2015) mentioned that the model emphasized the

importance of involving clients in any business operations. In the theme, participants

mentioned that the staff was involved in preparing home care medications for patients

with discharge orders. Patients are also engaged in home care medications through

education by the staff. In the education process, the staff explained the details of self-

medication when performed at home with families. The staff discussed as accurately as

possible so that the patient will have a full recovery and will no longer go back to the

hospitals for clarifications or complications. Hence, medication reconciliation was one of

the strategies which administrators formulated to ensure both staff and clients engaged to

perform after discharge from the hospital. The theme generated in this section does not comport with the CAS Model.

Data Collected. Another strategy emphasized to prevent re-admission is medication reconciliation which was mentioned by two out of the four participants. P3 stated, "Medication reconciliation is one of the strategies that we do when the patient comes to the outpatient department. The strategy ensures that patients are receiving accurate and updated medications which are administered correctly."

P4 responded,

> Medication reconciliation is done by the staff by listing accurately all home and discharge medications which the patient must take. The list also includes the drug order details like the dose, frequency, and route of administration. By providing the correct medications and instructions, patients will not go back for readmissions due to complications nor seek clarity of the orders in the outpatient department.

P2 mentioned,

> I found that poor compliance of the medication and instruction given to the patients lead to readmission and put the patients at risk and loss of the opportunity cost. As the study finding shows readmissions are preventable, and by reducing most of the preventable readmissions will help in reducing the cost of the care, have more empty beds for pending admissions in emergency and inpatient wards, less crowding will increase the operational efficiency and would lessen the pressure on inpatient specialists to discharge the patients prematurely.

P2 added,

> Unnecessary hospital readmissions as a result of poor compliance to home care
> regimen like not taking medications at correct intervals and frequencies or not
> performing proper wound cleaning for post-surgery cases will definitely have a
> great impact on the cost of care being spent on these returning patients. Money
> that could have been spent on caring for new patients are being allocated to
> patients who were already treated but returned because of reasons that could have
> been prevented.

As stated above, data from the Health Information Management Office showed that the discharge rates from January 2018 to March 2019 are fluctuating. Baseline data in January to June 2018 showed that the readmission rates were from 29- 41%. The rate dropped to 11% in July 2018 and remained less or equal to 15% from August 2018 until the end of April 2019. Therefore, the business administrators may have been implementing the strategies correctly as these indirectly reduced the readmission rates.

Theme 3: Having an Effective Follow-up Appointment System

Evidence from the literature. The third theme was an effective follow-up appointment system**.** Kripalani et al. (2014) discussed that there are current strategies that can reduce readmission rate for patients discharged for home care. Similar to the findings of this study, arranging timely outpatient appointments and providing telephone follow-up have been successfully found to reduce readmission rates (Kripalani et al., 2014). But the strategies must be multifaceted since the reasons for and the occurrence of readmission is multifactor (Kripalani et al., 2014). When single-component interventions

are used, it is unlikely readmissions will be reduced effectively (Kripalani et al., 2014).

The strategies included defining the role of home-based services, information technology,

mental health care, caregiver support, community partnerships, and new transitional care

personnel in relation to patient care upon discharge (Kripalani et al., 2014).

Wiest, Yang, Wilson, and David (2019) used the citywide campaign as a means to

primary care follow-up regarding patients' recovery and treatment evaluated the

outcomes of the 7-Day Pledge program by increasing access to timely primary care

appointments for patients after hospitalization. This can occur by removing barriers to

primary care follow up care after discharging patients from the hospital (Wiest et al.,

2019). The intervention using a follow-up system showed that those with primary care on

or before 7 days after hospital discharge received few readmissions. These mentioned

studies indicated transition care after hospitalization can be facilitated with good

appointment systems and reduction of hospital admissions.

Evidence from the conceptual framework. The CAS model highlighted the

need for adaptive mechanisms to understand and develop strategies against concerns or

gaps in a complex system like the health care industry. Miller (2016) emphasized that

when administrators have a wider view of patient care, like including home care, patient

care and recovery will be more effective and satisfying. The theme can be aligned with

the CAS model by focusing on the strategy identified by the administrators that changes

in the treatment environment are adaptable to the organization and the patients. Burke,

Kripalani, Vasilevski, and Schnipper (2013) suggested that there is a systematic approach

to transition in care from a hospital to a community or family setting. The approach

includes a good discharge plan, education, symptom management and others (Burke et al., 2013). To upkeep an effective patient care, an effective appointment system has to be in place to provide continuity of care.

The CAS model highlighted the need for adaptive mechanisms to understand and develop strategies to address concerns or gaps in the complex health care industry. Miller (2016) emphasized that when administrators have a wider view of patient care, including home care, patient care and recovery will be more effective and satisfying. Burke et al. (2013) suggested a systematic approach to transition in care from a hospital to a community or family setting. The approach includes a good discharge plan, education, symptom management and others (Burke et al., 2013). To ensure quality patient care, an effective appointment system is required to provide continuity of care. The CAS model emphasized the need for the patient and the organization to adapt to changes relevant to patients' conditions, treatment, and recovery especially after transition from hospital to home care. Miller (2016) emphasized that when administrators have a wider view of patient care, to include home care, possible readmissions will be reduced. The uncertainty of the effects of home care to patient is compounded and implementing new initiatives and changing processes introduce further uncertainty. Meanwhile, the theme generated in this section does not comport with BPQM.

Data collected. Among the participants, P2 expressed, "It is important to have an effective follow-up appointment system. I noticed that this can help prevent re-admissions." All four participants described the various support services for post-discharge patients after they leave the hospital. Among the services mentioned are (a)

home healthcare post-discharge, (b) common email and hotline for discharged patients, (c) admission discharge lounge, (d) rehabilitation services; (e) wound care and diabetes center, (f) intravenous (IV) unit, and (g) an ER service that could cater to their needs in times of emergency.

P1 stated,

> We have the support of the home health care post-discharge. Proper coordination and good coordination with home health care is a must. As you are aware, we closed the IV room for pediatric patients because of the home health care and it was very successful. Now we don't have patients coming to the IV room anymore. Plus, we are in the process of creating a common email and hotline, so the family can communicate with the unit, pediatric, or the neonatal intensive care unit, in order to give us feedback. And in the neonatal intensive care unit.

Also, P2 mentioned,

> We have the outpatient department to support follow-up visits. There is home healthcare for some specific patient categories. In pediatrics, patients have a clinic in the emergency department, as well. For patients who just got discharged, we have the admission-discharge lounge.

Moreover, P3 stated,

> We also have rehabilitation facilities for those who require this specific service. We have wound care and diabetes center. There is also the IV unit to provide IV infusions if still required. As part of their discharge plan and

education, patients are also advised to come to the emergency department if patients observe certain signs and symptoms.

One respondent mentioned that long waiting times during outpatient consultation is also an important barrier that contributes to readmission:

P1 stated,

> The second issue is the long waiting time for appointments in the outpatient department in order to check whether the patient improved or not. It is at this time that we need to change the dose or to give more information for the family; thus, it is very important to be seen on time. To address this issue, we created a new pediatric emergency follow-up clinic. All neonatal intensive care unit. Patients are seen there for follow-up three days after discharge. However, it is not possible for all discharged pediatric inpatients because we have a severe shortage of manpower both in the follow-up clinic and in the outpatient department.
>
> There is no community support. Most patients don't have a family to support them. If there is community support, patients can identify problems early and can tackle them early and so the patient will stay at home rather than coming back to the hospital when the problem has already become severe that patients have to be readmitted, said P3.

P4 stated,

> We are also trying to add extra slots in the outpatient department to accommodate more patients per day – therefore reducing the outpatient department waiting days and seeing patients sooner after the time of their discharge. We call patients with

critical values in their lab results to come back for prompt management. We create virtual beds in case of crisis. We also communicate with the primary health care center for the coordination and continuity of care in the community setting.

P3 stated, "We are in the beginning conversations with mobile doctors and community health care. We are also looking to implement the enhanced recovery program". Further P2 stated that,

> We are monitoring all hospital readmissions within 30 days and taking the time to review the cases one by one in order to analyze the causes for the return, whether it is really related to the first visit or if it is because of something else. If it is really due to the same problem or if it is a complication of the previous problem, then we discuss it as a department on how to improve our services to prevent such cases from recurring.

P4 stated,

> We can save a lot -financial wise- if we can minimize unnecessary and preventable readmissions. This means readmissions that are somewhat related to the primary visit. Eliminating most preventable readmission patients from the Emergency Department will allow us to have empty beds for other patients which will have a positive impact on pending admissions in Emergency Department. This means there would be less pressure for inpatient specialists to discharge patients prematurely. Less crowding also means no need for overtime which again will have a positive impact on the operational costs of the facility.

Applications to Professional Practice

Considering the costs, inefficiencies, and possible penalties attributable to patient readmissions, it may be worthy of exploring this case as a business-related inquiry. The themes derived from this study provided key strategies that may be valuable to hospital administrators in implementing strategies that reduce the costs of hospital readmissions. The strategies included discharge plan and patient education, medication reconciliation, and effective follow-up appointment system. The findings may help reduce the occurrence of readmissions and promote the recovery of patients after hospital discharge. Moreover, the follow-up system paired with education, promote continuity of care; is enhanced by patients' and families' engagement (Lederman, Smith, Dreyfus, & Alzougool, 2016). Furthermore, inadequate hospital and manpower, miscommunication and/or poor quality of patient education were some of the reasons for readmissions found in this case study. These reasons can serve as bases in implementing recommended interventions such as recruitment of more healthcare providers, streamlining of hospital resources, and improving the quality of patient care through audits and training. It is critical to identify the reasons why a patient goes back to the facility for readmission (Krys, Blazej-Lyszczarz, Wyszkowska, & Kedziora-Kornatowska, 2019).

Another implication for patients is the optimization of care from hospitals to home is to avoid readmissions. The strategies mentioned by the hospital administrators are mitigating actions that emphasize collaborative care necessitating effective communication between the administrators, staff, patients, and families. Neglecting the transition care plan from the start of discharge planning will lead to premature discharge

and consequently, readmissions (Mitchell et al., 2016). All the strategies mentioned might affect hospital expenditures and the organization's reputation as a health care service business industry. At present, the hospital administrators can adopt and implement the results of this study to promote positive hospital experiences of the patients and reduce the effects of readmissions to hospital expenditures.

Implications for Social Change

In addition to financial and economic costs, readmissions also present a significant burden to families, caregivers and communities because of the anxiety and worry that come with every readmission case. Patient safety is the key principle of the latest National Health Strategy of the State of Qatar. In line with these principles, the State has a national target to decrease by 25% the 30-day readmission rate for chronic conditions by 2022 (Ministry of Public Health, State of Qatar, 2018). This means that the findings of this study might be helpful in developing ways to mitigate the burden of readmissions to the family, caregivers, and communities, which in turn help meet the State its targets.

Furthermore, the findings of the case study have implications for the following:

- Administrators may change their organizing process by requiring more collaboration with the clinical staff and patients. The collaboration aims at developing processes on reducing patient readmissions and supporting healthy and safe recovery opportunities to patients in their homes, which may improve their quality of life.

- Good patient care reflects positively on a hospital, boosting the desire to work in the environment, which may lead to greater economic strength of the hospital and related services within the community. Growth in business may translate to growth in employment and greater financial independence for individuals and families.

- The study has positive social change impacts for societies that work to improve medical practices which may ultimately improve the personal wellness of individuals and their families. A healthier society is more equipped to thrive and contribute to a culture of wellness in society.

Recommendations for Action

Considering perennial problems in staffing and infrastructure, senior hospital administrators should hire more healthcare professionals and invest in more hospital infrastructure. In addition to what the participants proposed, I also recommend that administrators consider implementing the RED in their respective practices, considering that it is evidenced-based and has substantial clinical and/or business benefits (Mitchell et al., 2016). Among the benefits of using RED are better clinical outcomes, substantial drops in readmission and emergency department visits, in particular, meeting safety standards and improved documentation, and improvements on return on investment (Jack et al., 2013). The implementation of RED must follow the recommended steps. An executive sponsor will ensure the successful implementation of RED together with key individuals. Process mapping, problem identification, the delegation of roles and

responsibilities, staff training, implementation, monitoring, and evaluation are the activities necessary to explore a phenomenon through RED.

In addition to implementing RED, the following recommendations are also offered to senior hospital management and healthcare professionals in improving the quality of care and minimizing readmissions at the hospital:

- Specifically, more frequent clinical audits and feedback to concerned healthcare professionals.

- They need to develop more protocols and guidelines, in particular, for the treatment of the patients, such as separate protocol for emergency patients, and separate protocol for priority patients.

- Streamlining hospital operations and reduce redundancies throughout the patient pathway.

- Improving discharge plans, and how these plans are prepared, how patients and their caregivers are educated about managing their conditions.

Decreases in hospital readmissions can only be attained if hospital administrators are resolute in doing everything in their power to reduce readmissions and that every stakeholder is actively involved in the process. As part of the ethical obligation of researchers to disseminate findings, I will disseminate the findings in conferences and peer-reviewed journals about the determinants of readmission, as well as the suggested action points and recommendations in reducing readmissions from a Qatari hospital's

perspective. Submission to international journals of health care quality or patient safety will also be considered.

Recommendations for Further Research

One of the recommendations would be for further research to conduct a cost-benefit or cost-effectiveness analysis of interventions to reduce readmissions and to provide quantitative evidence to its benefit in the local context. In this way, such an approach would ensure that the interventions being implemented have sound business sense and is evidence-based. Another recommendation for further research would be to assess how well the interventions to reduce readmissions did attain the desired outcomes. Such a study would mostly use secondary data conducted for monitoring and evaluation purposes. This would be an additional reason to have a well-functioning monitoring and evaluation system as described by the RED (Mitchell et al., 2016). Studies such as these would streamline operations, thus may improve efficiency and allow for a way to quantify how investments towards these interventions have paid off. Closely connected to this recommendation would be a client satisfaction study to determine if any of the recent interventions to reduce readmissions translated to implemented in clinical settings has improved patient satisfaction.

One of the identified limitations of this study was the low generalizability owing to the low sample size (Polit & Beck, 2009). Thus, further research should build on the findings of this study and interview more hospital administrators. Additionally, researchers should include more hospitals to provide an opportunity for the exploration of

best practices between different hospitals and to explore avenues for cooperation and collaboration.

Reflections

In addition to the coursework, and in the course of doing this research and throughout this study, there were a number of significant things learned. First, there is more to healthcare than hospitals like preventive measures need to be told to people, health awareness, self-management of general health, and administration of drugs. Second, patient-centered care need not be expensive; rather, it is often the best and cost-effective way to run a healthcare facility. Third, clinical practice can also draw significant business solutions to healthcare provider operations. Fourth, there are more areas of study that can be explored along with the areas of healthcare facilities that would minimize expenses yet maximize resource utilization.

As a hospital administrator, I observed several gaps in management and governance in hospital settings, which are truly apparent and vital in the conduct of this kind of study. I saw how sick patients come in and recover, how new life enters into the world, and how life withers away at its end. However, in the interviews with the other hospital administrators, P3 kept on mentioning the role played by the community in making people healthy and preventing them from getting sick. This experience provided much realization that clinicians at the hospital are already so late into the cascade of care such that clinicians only take care of the sick, and have virtually no role to play to prevent healthy people from getting sick. It was here when I started to appreciate public health as the art and science of promoting health, preventing disease, and prolonging life. This

profound realization made me re-think about how hospitals should partake more in preventing disease, not just in curing it.

I tried a fool-proof strategy to avoid all the possible personal biases starting from designing the study proposal research method, to questionnaire development, to selecting the hospitals, to method interviews, to data collection and transcription, and so on. Although I took all the precautions, being a working professional of the same field, there is always a chance that I may have some preconceived ideas or thoughts and values that might have affected the interview schedule positively as well as negatively, selection criteria of the participants, the views of the participants. My profession, knowledge about this field, and personal experiences as administrator may have influenced the investigation both positive and negative despite rigor in establishing strategies of objectivity, including using an interview protocol, saturation in data collection, triangulation to fortify evidence, member checking to ensure accuracy of reporting, and purposefully removing any personal opinions or interjections into participant contributions and analysis.

Completing this degree in business might open up more avenues for explorative study. The case study serves as a reflective learning experience for me as a post-graduate student in business management. I am now more appreciative of the integration of health care and business management. I have knowledge on the hospital operations in the selected facility and learned principles of managing business operations.

I learned to establish a relationship for the purpose of gathering key points that addressed the interview questions and aims of this study. I also realized that the entire

process of interviewing participants, transcribing messages and analysis takes considerable amount of time. I also learned how to bracket my perspective about readmissions and management. With my knowledge and experience in hospital administration, I was able to generate follow-up questions and understand more about hospital readmissions and how its costs can be reduced.

Conclusion

Based on the findings, shortages in resources, miscommunication within the professional patient care system, and gaps in patient education were the leading factors of hospital readmissions. From this investigation, I concluded that the discharge plan and patient education, medication reconciliation, and an effective follow-up appointment system were strategies that can help reduce the costs in hospital readmissions. Complex adaptive system and business process quality management principles anchored the framework proposed in this case study.

I recommend business managers and administrators to promote patient engagement and organizational support to their staff. The administrators are also encouraged to use business models and evidence-based strategies to reduce hospital readmissions and its consequences. I recommend the RED be used to reduce readmission costs. The toolkit can be used in the identification, planning, implementation, monitoring and evaluation of readmissions. The tool kit can help administrators make decisions more systematic and effective that will yield positive outcomes to their stakeholders like patients, families and communities. The organization is recommended to ensure continuity of care as a patient goes back to the community after discharge.

Enhancing the wellness of the patients and generating a better quality of life for local residents sends a message to the community that the hospital administrators are implementing strategies in reducing readmissions and expenditures. In saving extra expenditures from readmissions, the administrators can better allocate funds to extend business plans from hospitals to community-based which suggests the importance of supporting primary health.

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Appendix A: Interview Protocol

Hello! My name is _____. I am here to learn about strategies used in reducing costs associated with hospital readmissions. Thank you for taking your time to talk with me today. There are no right and wrong answers, or desirable and undesirable answers. If it's okay with you, I will be tape-recording our conversation. Everything you say will remain confidential.

Note: The researcher will use phrases such as "Tell me more", "Could you geive me an example?", "Could you explain that?" as prompts to solicit more detailed information when needed.

Interview Questions

1) What strategies are used upon discharge to assist the patient to continue the

   recovery process to avoid readmissions?

2) What services are available in the hospital to support patients post-discharge?

3) What conditions do hospital caregivers indicate as reasons for readmissions?

4) What are the existing barriers that contribute to increased readmissions?

5) How has your organization addressed the key challenges to implement your

   strategy for reducing readmissions?

6) What measures do you use to monitor the effectiveness of the hospital's strategy

   to reduce readmissions?

7) What additional information can you provide to assist me understanding cost

   reduction associated with hospital readmissions?

Wrap up the interview: Thank the participant for their time. Schedule follow-up interview.

Follow-up and Member Checking Interview

Introduce a follow-up interview

Share a copy of the succinct synthesis for each question.

Ask a probing question related to any information found during the interview

and related to the research topic.

Walkthrough each question, read the interpretation and ask: Did I miss anything? Or,

what would you like to add?