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Healthcare Management Strategies for Achieving Sustainable Departmental Productivity Improvements

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
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Abstract

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MS, Walden University, 2017

BSN, North Carolina Central University, 2000

Doctor of Business Administration Prospectus – Healthcare Management

Submitted in Partial Fulfillment of the Requirements for the Degree

of

Doctor of Business Administration

Walden University

Student ID: A00568675

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Abstract

Healthcare organizations’ leaders' lack of strategies to effectively deploy and monitor departments’ productivity goals affect overall organizations’ performance. Healthcare leaders who fail to deploy and monitor departmental productivity strategies effectively are limited to enhancing healthcare organizations’ performance outcomes. Grounded in transformational leadership theory, the purpose of this qualitative multiple case study was to explore strategies healthcare organizations’ leaders use to effectively identify, deploy, and monitor departments’ goals for improving their overall organization's performance. The participants were 20 healthcare leaders who successfully demonstrated success in improving their organizations’ departmental-specific productivity performance. Data were collected using semistructured interviews and a review of literature along with departmental-specific processes and practices. Through thematic analysis, five themes were identified: (a) communication, (b) data-driven decision making, (c) information transparency, (d) employee engagement, and (e) performance management. Key recommendations are for healthcare leaders to build an engaged organizational culture through employee engagement, purposeful communication, and data sharing that facilitates identification, development, and monitoring of actions to enhance product performance. The implications for positive social change include the potential to enable the public to access more efficient and productive health care systems for improved quality of patient care.

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Dedication

I thank God for giving me the fortitude, inspiration, and vigilance to complete the challenging tasks associated with progressing my education and completing this journey. I dedicate this research to the personal support I received from many family and friends that provided encouragement.

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I would also like to thank my grandmother for instilling in me the desire to keep learning and improving myself. Although she is no longer with me her words of wisdom and encouragement continues to ring in my mind.

Table of Contents

List of Tables v

Section 1: Foundation of the Study 1

Background of the Problem 1

Problem Statement 2

Purpose Statement 3

Nature of the Study 3

Research Question 5

Interview Questions 5

Conceptual Framework 6

Operational Definitions 9

Assumptions, Limitations, and Delimitations 9

Assumptions 9

Limitations 10

Delimitations 10

Significance of the Study 11

A Review of the Professional and Academic Literature 11

Conceptual Framework 13

Professionalization of Healthcare Leadership 14

Healthcare Leadership Components 18

Healthcare Productivity 27

Big Data in Leadership 40
Transition 45
Section 2: The Project 47
Purpose Statement 47
Role of the Researcher 47
Participants 50
Research Method and Design 51
Research Method 51
Research Design 52
Population and Sampling 54
Ethical Research 55
Data Collection Instruments 56
Data Collection Technique 57
Data Organization Technique 58
Data Analysis 59
Reliability and Validity 60
Reliability 60
Validity 62
Transition and Summary 64
Section 3: Application to Professional Practice and Implications for Change 65
Introduction 65
Presentation of the Findings 67

RQ1: What Strategies do Healthcare Organizations' Leaders Use to Effectively Identify, Deploy, and Monitor Departments' Productivity Goals to Improve Their Overall Organizations' Performance? 68
Connecting Findings to the Conceptual Framework 79
Applications to Professional Practice 80
Implications for Social Change 82
Recommendations for Action 86
Senior Leaders Could Provide Coaching to Junior Leaders 86
Leaders and Their Teams to Take up Professional Training in Communication 87
Recommendations to Facilitate Performance Management Within -Teams 87
Health Systems to Examine the Various Data Analytics Options and Choose Based the Best Option for Their Needs 87
Use of Information Transparency Analysis to Avoid Negative Results of Transparency 88
Healthcare Employee Quarterly Surveys to Understand Expectations and Trends 88
Recommendations for Further Research 89
Reflections 89
Conclusion 90
References 91

Appendix A: Interview Protocol 118

Appendix B: Interview Questions 120

Appendix C: Social Media Post 122

Appendix D: Data Collection Steps for Interview Study 123

Appendix E: CITI Human Subjects Protection Training Certificate 124

List of Tables

Table 1 *Strategy Themes and their Frequency in the Data*..... 67

Section 1: Foundation of the Study

Healthcare organizations' sustainability is linked to operational and fiscal management. Leadership skills affect the outcomes of operational productivity and fiscal performance. According to Conbere and Heorhiadi (2018), leadership actions potentiate success of organizational operations. Talib et al. (2019) noted that poor productivity performance and strategic goal progression suffered due to poor leader management performance. The purpose of this qualitative multiple case study was to explore the strategies that healthcare organizations' leaders use to effectively identify, deploy, and monitor departments' goals for improving their overall organizations' performance.

Background of the Problem

The nature of health care leadership is unique because of the intrinsic and extrinsic factors driving operational and fiscal management (Conbere & Heorhiadi, 2018). The unique influences require competency of strategic planning, goal setting, and execution that are often found to be insufficient in some health care leaders (Chiarini & Vagnoni, 2017; Gleason & Bohn, 2017). According to Conbere and Heorhiadi (2018), the barriers to effective leadership in the health care sector include structural organization, the process of promotion, limitations of management training, professional training of physicians, insufficient training in interpersonal interaction, and independence of physicians. These barriers limit the ability of leaders in health care to be effective in the management operational and fiscal factors.

When leadership is not effective, the productivity of health care institutions also suffers (Chelagat et al., 2019; Govender et al., 2018). Preventable negative outcomes

occur each year because of poor leadership and the mismanagement of resources in health care (Chelagat et al., 2019). Moreover, poor leadership has also been found to be associated with sluggish organizational performance related to fiscal and operational factors (Govender et al., 2018). The use of strategic tactics to manage resources potentiates successful outcomes.

Strategic management is necessary to ensure that the productivity of the health care system is not compromised (Conbere & Heorhiadi, 2018; Vince & Pedler, 2018). Leadership development strategies are sometimes unfit with the intended goals of the health care system (Vince & Pedler, 2018). Moreover, the lack of management training among health care leaders has been reflected in the lack of strategic management in health care (Conbere & Heorhiadi, 2018).

Problem Statement

Leadership in the health care setting has been found to be insufficient at the departmental level because of poor strategic management, limiting the productivity level of many organizations (Chiarini & Vagnoni, 2017; Talib et al., 2019). From 2007 to 2016, the productivity rate in health care institutions was at a moderate annual increase rate of 0.7% in 2007 to 2016, which is a decline from the 1.7% annual increase rate in 1993 to 2001 (U.S. Bureau of Labor Statistics, Office of Productivity and Technology, 2019). The general business problem was that some healthcare organizations' leaders are unable to strategically manage productivity at the departmental level. The specific business problem was that some healthcare

organizations' leaders lack the strategies to effectively deploy and monitor departments' productivity goals to improve their overall organizations' performance.

Purpose Statement

The purpose of this qualitative multiple case study was to explore the strategies that healthcare organizations' leaders use to effectively identify, deploy, and monitor departments' goals for improving their overall organizations' performance. The targeted population included 20 departmental leaders who have developed, deployed, and monitored progress against the derivative departments' goals. The geographic location was the Western region of the United States within acute healthcare organizations that have successfully demonstrated success in improving their organizations' departments' productivity through achieving the organization's leaders' related goals for departments' productivity improvements. Using or adapting this study' findings could be the catalyst for positive social change by encouraging better strategic leadership practices that enable the public to access a more efficient and effective healthcare system for benefiting communities' citizens and families.

Nature of the Study

I selected a qualitative methodology for this study. Qualitative methods are constructivist-based because data emerge from the deep reflections and experiences of the participants (Edmonds & Kennedy, 2016). Qualitative research is the appropriate method when the goal of the researcher is to frame a problem using exploratory methods to inductively understand a phenomenon without being influenced or constrained by the existing literature or conceptualizations (Lampard & Pole, 2015). Given the exploratory

nature of this study, the constructivist framework of understanding a phenomenon, and the use of flexible data collection tool, the qualitative method was the appropriate approach.

Quantitative research was not appropriate for this study because this method is a post-positivist approach to scientific inquiry wherein variables are measured to determine their characteristics or relationships (Babones, 2016). The quantitative method was not appropriate for this study because using this approach would not have resulted in the depth and complexity data necessary to fully capture the experiences of the participants. According to Bryman (2017) the mixed method could also be used to answer more complex research questions. The mixed method approach contains both qualitative and quantitative elements and was not appropriate for this study.

I selected a multiple case study design involving 20 leaders in acute healthcare organizations who have successfully improved their organizations' performance by identifying, deploying, monitoring, and achieving departmental goals. A case study is the multiperspective and intensive exploration of a phenomenon without modifying the natural environment of the people involved in the said phenomenon (Yin, 2017). Case study was the appropriate design for this study because the design is suited to the use of triangulation as a result of using data from different research sites and results in in-depth exploration and characterizations of the phenomenon in its natural context.

Other qualitative designs such as phenomenology, ethnography, and narrative research were not appropriate for the current study because of their limitations in scope and misalignment with the research goals. Phenomenological research involves

exploring the personal meanings of the lived experience of individuals about a phenomenon (Yüksel & Yıldırım, 2015). Phenomenological research design was not appropriate because I did not explore personal deep emotional and psychological processes. Ethnographic research involves a systematic inquiry of a problem rooted from the practices and customs of ethnic or culturally unique group (Hammersley & Atkinson, 2007). Ethnographic research design was not appropriate because I did not explore a specific culturally unique group that would necessitate immersive methods of inquiry. Narrative research is the use of participants' personal stories in illuminating the meaning of a socially constructed phenomenon (Wang & Geale, 2015). Narrative research was not appropriate for the study because the methodological emphasis of only using personal stories would was not adequate in capturing the complexity of the current research problem.

Research Question

What strategies do healthcare organizations' leaders use to effectively identify, deploy, and monitor departments' productivity goals to improve their overall organizations' performance?

Interview Questions

1. What strategies have you used to develop, deploy, and manage your organizations' departments' productivity performance goals to improve your organization's overall performance?
2. What specific strategies have you discovered to be particularly effective in influencing departments' productivity performance in your organization?

3. Based upon your experience, how did these strategies influence your organizations' departments' productivity performance?
4. What were the key barriers to implementing your strategies for improving your organizations' departments' productivity performance?
5. How did you address the key barriers to developing, deploying, and implementing the goals for improving your departments' productivity performance?
6. What strategies have you used to monitor the performance of your organizations' departments' productivity performance against their deployed goals?
7. What key barriers have you encountered in monitoring the productivity performance of your organizations' departments against their deployed goals?
8. How did you address the key barriers to monitoring the productivity of your organizations' departments against their deployed goals?
9. What other relevant issues or insights that we have not yet discussed would you like to share with regard to the strategies you used to identify, deploy, monitor productivity goals for departments to improve the overall performance of your organization?

Conceptual Framework

The conceptual framework of this study was based on the theories of transformational leadership by Bass and Avolio (1994) and the policy development theory of Akao (1991). Akao's policy development theory (Hoshin Kanri) was expanded

by Joseph Juran with a focus on the managers' role within the policy development process (Barnabè & Giorgino, 2017; Kollberg et al., 2006; Sohn et al., 2017). The transformational leadership theory was used as the basis for the leadership research necessary to facilitate improvement in the organization. The policy deployment theory was used as the framework for the processes needed to plan and drive improvements in overall organizations' productivity.

The theory of transformational leadership can be used to enhance organizational productivity through the ability of leaders to inspire confidence among employees and communicate shared vision with the organization through charisma (Yammarino & Dubinsky, 1994). The transformational leadership theory underscores the importance of building a positive relationship with employees for leaders to exert positive influence that affects the entire organization (Breevaart & Bakker, 2018). Avolio's theory was relevant to this current study in that I explored the context regarding the effective strategies for the deployment and monitoring of organizations' goals for improving and sustaining departmental productivity.

The four key elements of transformational leadership are idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994). Idealized influence refers to the charisma of leaders. Inspirational motivation involves the ability of leaders to inspire their employees to act in ways that are favorable to the organization. Intellectual stimulation refers to the ability of leaders to challenge their employees to be creative and innovative. Individualized consideration

refers to the ability of leaders to communicate concern with every employee in an organization.

Complementing the theory of transformational leadership, I also used policy deployment theory as a component of the conceptual framework of this study. The main principle of the policy deployment theory is based on the assumption that continuous improvements are influenced by strategic objectives and having daily control of the operations of the business (Duarte, 1993). The factors of strategic objectives and daily control are the foundation of organization's overall performance. According to Kollberg et al. (2006), the policy deployment theory (Hoshin Kanri) contains four key processes that need to be fulfilled to ensure the development of strategic objectives and that leaders have daily control of the organization. First, policies need to be created to facilitate change. Second, a plan needs to be developed based on the feedback from customers and other managers. Third, policies need to be deployed based on a schedule that will allow the assessment of goals and objectives. Fourth, the process is reviewed annually in order to continue improving the overall organizational performance. These four processes are central in improving the overall organization's performance (Duarte, 1993). I used the composite conceptual framework of transformational leadership and policy development to identify and understand the strategies the leaders used to effectively identify, deploy, and monitor departments' goals for improving their overall organizations' performance.

Operational Definitions

Clinical healthcare leader: Clinical healthcare leaders are leaders and change agents at the point of clinical healthcare delivery in the progression of patient care (Noles et al., 2019).

Management strategies: Management strategies coincide with strategy development and actions related to leader planning and implementation of actions towards decision making and change progression (Knight et al., 2020).

Organizational productivity: Organizational productivity is the use of labor, capital, time, energy, and materials effectively to achieve a competitive business advantage related to output versus input (Torabi & El-Den, 2017).

Organizational sustainability: Organizational sustainability includes a collective of effective leadership and organizational insight with strategic development and implementation necessary to sustain an organization by enhancing innovative ideas and actions with outcomes of fiscal and community responsibility (Bilan et al., 2020).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are thoughts and ideals considered to be true but are not verified (Armstrong, & Kepler, 2018). I assumed that the participants would be honest and forthright during the data collection. I mitigated the risk of having dishonest or deceitful answers by reminding the participants about the confidentiality procedures that I used to protect their identities and other important personal information. I also assumed that the

selection of 20 leaders in three acute healthcare organizations in the Western United States would be sufficient in finding themes to answer the research questions.

Limitations

According to Theofanidis and Fountouki (2018), limitations refer to potential weaknesses within the study. One potential limitation of this study was the small sample size, which could have affected the transferability of the findings if incorrect conclusions were deduced. Another limitation that is associated with the selection of a qualitative design was the inability to make causal conclusions about the effect of leadership on the organizational productivity in health care organizations (Yin, 2017). However, the use of multiple sources and in-depth data collection tools facilitated a more nuanced description and understanding of the strategies that departmental healthcare leaders use to manage departmental level labor productivity.

Delimitations

According to Theofanidis and Fountouki (2018), delimitations refer to the bounds or scope of the study. The study was bounded by conceptual framework of the theory of transformational leadership by Bass and Avolio (1993). I based my assessment of effective leadership in health care setting on the principles of transformational leadership. Another delimitation of the study was that the study was confined by the philosophical principle of qualitative research, which means that data was constructivist-oriented based on the deep reflections and experiences of the participants. The constructivist framework simplifies the thought of new propositions and reasoning (Edmonds & Kennedy, 2016). Finally, the study was delimited to the participation of 20 leaders in acute healthcare

organizations that had successfully demonstrated employee labor productivity performance in the Western United States.

Significance of the Study

The significance of the study is that the results may impact strategic practices in health care organizations, increasing departments' productivity. Effective leadership in the health care setting is critical to strengthen quality and integrate care (Sfantou et al., 2017). The results of this research study may be used to encourage leaders of other health care organizations to align their organizations' strategy to further support communities.

The contribution of this study to effective business practice is the possible enhancement of the ability of other health care leaders to engage in strategic practices for improving the productivity of their departments. The potential contribution of this study to positive social change is the encouragement of better strategic leadership practices that enable the public to have access to more efficient and productive health care systems for improved quality of patients' care.

A Review of the Professional and Academic Literature

Evaluation of healthcare productivity leadership and deployment of strategies requires the comprehension of actions, knowledge, and activities by healthcare departmental leaders. Leadership in the health care setting has been found to be insufficient at the departmental level because of poor strategic leadership, limiting the productivity level of many organizations (Chiarini & Vagnoni, 2017; Gleason & Bohn, 2017). The purpose of this qualitative multiple-case study was to explore the strategies

that health care departmental leaders use to lead employee labor productivity performance. Some healthcare leaders are unable to strategically lead the departmental level workforce, which results in loss of employee labor productivity performance. The targeted specific population includes 20 departmental level leaders who are responsible for workforce operations and employee labor.

The literature review is composed of five major headings. First, I focus on the conceptual framework of transformational leadership. The second heading targeted the professionalization of healthcare leadership. Linnander et al. (2017), proposed that improved education and templated practices improve organizational performance. Within the third research heading I evaluated healthcare leadership components and theory supported by design thinking related to transformational leadership by Bass and Avolio (1994) and the policy deployment theory of Akao (1991). Within the fourth heading I outlined healthcare productivity and components to support improved performance. In the final heading I discussed the use of data in leadership and how data can be implemented to manage innovation activities, strategic development, and organizational outcomes.

The literature review is primarily focused on peer reviewed research and articles that are within the anticipated 2018 to 2022, five-year approval of my study by Walden's chief academic officer. The literature review contains 178 total references with 68% of the sources having a publication date of 2018 or later 168 peer reviewed articles that is 94% of the total research sources. I conducted a review of the recent literature using electronic journal search engines. The following search engines were used to produce

relevant studies: Google Scholar, EBSCOHost, and JSTOR. The following search terms were used individually and collectively to produce relevant studies: *healthcare, leadership, healthcare, productivity, technology, policy development, healthcare productivity, employee leadership, evidence based leadership, cost efficiency, organizational innovation, productivity metrics, organizational design, healthcare data management, lean leadership, management in healthcare, organizational outcomes, transformational leadership, policy deployment theory, and leadership strategy.*

Conceptual Framework

The conceptual framework of this study was primarily based on the transformational leadership theory by Bass and Avolio (1994). Bass and Avolio's leadership theory purports to enhance organizational productivity through the ability of leaders to inspire confidence among the staff and communicate the shared vision with the organization through charisma (Yammarino & Dubinsky, 1994). The transformational leadership theory underscores the importance of building a positive relationship with employees in order for leaders to exert a positive influence that affects the entire organization (Breevaart & Bakker, 2018). I used transformational leadership theory to explore labor leadership strategies of healthcare leaders use for sustainable departmental productivity.

The four key elements of transformational leadership are idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994). Idealized influence refers to the charisma of leaders. Inspirational motivation involves the ability of leaders to inspire their employees to act in ways that

are favorable to the organization. Intellectual stimulation refers to the ability of leaders to challenge their employees to be creative and innovative. Individualized consideration refers to the ability of leaders to communicate concern with every employee in an organization. Transformational leadership also aligns with Hoshin Kanri's concept of policy development for ensuring that the goals of a company drive progress and action at every level within that company (Akao, 1991).

Transformational leadership (Bass & Avolio, 1994) has been established as the optimal leadership style in most organizational settings regardless of field. Transformational leadership has been associated with positive employee outcomes, including productivity and engagement (Breevaart & Bakker, 2018). Given the empirical evidence supporting the effectiveness of transformational leadership, this leadership theory was utilized in this study. The transformational leadership theory was used as a framework for understanding the strategies that may be used by leaders to enhance organizational productivity in health care departments. The transformational leadership theory was applicable and applies to the current study because it provides a framework for how leadership should be applied to influence optimal organizational outcomes according to Bass and Avolio (1994). Bass and Avolio (1994), provided insight regarding how policy development was used to evaluate the relevance of tactic implementation and the progression of strategies within organizations.

Professionalization of Healthcare Leadership

The professionalization of healthcare leadership has occurred at different rates internationally (Linnander et al., 2017). Drawing on a thematic review of the literature,

Linnander et al. (2017) determined the process by which nations professionalize their healthcare leadership. The literature review uncovered five common themes across healthcare leadership literature. The themes included: (a) a national context for healthcare leadership demand, (b) a national framework which elevates leadership practices, (c) standards for healthcare leadership and monitoring, (d) educational paths designed to funnel individuals into healthcare leadership, and (e) professional associates at a lower level to maintain the field. Based on the findings from their study, Linnander et al. (2017) developed a long-run strategy at a national level for professionalizing healthcare leadership practices. Though long-run professionalization of the healthcare field has benefits for patients such as improved employee retention and better outcomes (Linnander et al., 2016), there can be unintended consequences such as an overpowering of community choice in favor of templated leadership practices (Blasi et al., 2018). As indicated herein, there are both positive and negative aspects of the professionalization of healthcare leadership practices. Due to the variable nature of healthcare systems and politics, countries have unique and complex problems related to managing the healthcare industry (Stefko et al., 2016). According to Stefko et al. (2016), countries often have different health, economic, and social conditions that influence healthcare policy. However, a commonality across all national health systems is a focus on cost reduction and efficiency. This emphasizes the importance of healthcare leadership and prompts deep exploration into leadership strategies for increasing efficiency. In a quantitative study using Malmquist indices, Stefko et al. (2016) explored the use of day surgery facilities in regions of Slovakia. Traditionally, healthcare leaders required most surgical

patients to remain in the hospital for multiple days. Stefko et al. (2016) explored the feasibility of releasing patients who do not require continued follow-up care on the same day. The results of the study indicate that day surgery is a viable option for healthcare institutions, but leaders must ensure that their facilities have sufficient conditions related to the following factors: healthcare system motivation, experienced staff, qualified surgeons, anesthesiologist resources and qualifications, patient motivations, and patient social backgrounds.

As indicated, opponents might suggest that logistical challenges exist with respect to healthcare system amotivation, lack of experienced staff, unqualified surgeons, limitations in resources, patient amotivation, and social factors (Stefko et al., 2016). The variable nature of healthcare systems also leads to the requisite for context-specific decisions regarding the implementation of health leadership strategies, as opposed to the adoption of a universal approach that is demonstrated to be effective in the literature (Roemeling et al., 2017).

Managing employee and institutional knowledge is a key function of healthcare leadership (Karamitri et al., 2017). Hospitals and other medical care facilities have an extreme amount of data and a need for interagency cooperation and data sharing. Using a literature review format, Karamitri et al. (2017) explored strategies for managing institutional knowledge in hospitals. Karamitri et al. (2017) found that literature on knowledge leadership in hospitals and health agencies had key themes and elements. The sample included 604 total articles and 20 which were eligible for analysis by the researchers. The key themes were: perceptions of the need for knowledge leadership,

synthesis, dissemination, collaboration, and leadership's role in knowledge leadership. In addition to the key themes, Karamitri et al. (2017) found that barriers existed to implementing better knowledge leadership through healthcare leadership structures. The barriers included employee time restrictions and limited skill in knowledge leadership amongst employees. To address the barriers, Karamitri et al. (2017) recommended that hospital leadership be encouraged to take knowledge leadership seriously and serve as an intermediary of knowledge for employees.

Further developing the understanding of how lean leadership applied to healthcare institutions, Habidin (2017) conducted a quantitative assessment of lean leadership strategies in healthcare to develop a framework. Habidin (2017) used confirmatory factor analysis to analyze the data collected from 238 healthcare leaderships in the Malaysian healthcare industry. After analyzing the data and results, Habidin (2017) confirmed that a lean leadership construct would successfully improve healthcare competitiveness when applied to most healthcare institutions. An analysis of the constructs revealed that eight of the common constructs used in a lean healthcare leadership system framework were sufficiently impactful to qualify for inclusion based on the study framework. The eight constructs that were relevant to the healthcare institutions in Malaysia were: leadership, employee involvement, organizational culture, customer focus, technological innovation, process innovation, and healthcare performance (Habidin, 2017). According to Habidin (2017), implementing lean frameworks that are used to focus on improving the above-mentioned relevant metrics would improve healthcare competitiveness. While the literature abundantly supports lean leadership, opponents may suggest that such

leadership cannot be implemented without the presence of each of these eight factors and that continuous monitoring may prove to be challenging in some healthcare contexts (Narayanamurthy & Gurumurthy, 2018).

Healthcare Leadership Components

Preferred leadership characteristics within the healthcare profession is driven by business research and proven organizational outcomes. Griffith (2018) discussed how various leader components are driven by organizational partnerships and evidence-based leadership thinking to potentiate successful outcomes. Healthcare strategies and human centered need have some responsibility of leader expectation and organizational competency (Gallagher-Ford, & Connor 2020).

This section includes a discussion of healthcare leadership components. First, design thinking is discussed. Then, other subcomponents that comprise healthcare leadership are considered, such as lean healthcare leadership, and evidence-based leadership.

Design Thinking

Design-thinking is a commonly used business methodology which focuses on setting up systems to meet the needs of customers (Roberts et al., 2016). According to Roberts et al. (2016), healthcare systems could similarly benefit from design-thinking to meet their needs by incorporating this methodology into their leadership practices. Current healthcare practices effectively diagnose and treat illnesses, but the rise of long-term illnesses caused by human behavior, such as diabetes, is complicated to lead under the current system because it requires incorporating human behavioral change. Fisher et

al. (2016) determined that employing a design-thinking framework in the healthcare system will require healthcare institutions to a) develop a capacity for greater stakeholder engagement, b) engage more diverse stakeholders, c) rapidly test small hypothesis and solutions. By incorporating design thinking, Fisher et al. (2016) argues that healthcare systems will be better equipped to deal with and lead social change.

As the healthcare industry progresses and modernizes, researchers have considered design-thinking frameworks that have been adapted to specific segments of healthcare leadership research (Carroll & Richardson, 2016). Carroll and Richardson (2016) highlight that a pivotal point of design thinking is to establish individual's and organization's specific needs and pinpoint areas which need improvement. An example of an adapted design thinking framework is Carroll and Richardson's (2016) connected health model for healthcare leadership. The Connected Health model for leadership is intended to help healthcare leaders make businesses decisions in the healthcare sector utilizing newly available technological resources. Carroll and Richardson (2016) argue that progressive technology utilization is critical in the healthcare sector because healthcare technology has the ability improve outcomes and patient leadership. The principles of the Connected Health model focus on a) supporting software developers to identify healthcare wants and requirements and b) extend and deepen existing software utilization in healthcare.

Utilizing a case study methodology, Carroll and Richardson (2016) examined the impact of the Connected Health model on an e-pharmacy. In keeping with the design thinking methodology, Carroll and Richardson (2016) first focused on identifying areas

where the e-pharmacy needed to improve, specifically in relation to data and data leadership. For the e-pharmacy, the ordering transmission system caused inefficiencies in the ordering and delivering process. Carroll and Richardson (2016) found that improving the ordering transmission system and inventory leadership systems resulted in cost efficiencies and improved patient experiences. Additionally, Carroll and Richardson (2016) found inefficiencies in the employee logging and workflow, which were corrected through more rigorous data leadership protocols.

Productively applying design thinking to a healthcare framework requires a certain degree of training and critical thinking (Ferreira et al., 2020). As emphasized by Fisher et al. (2016), incorporating design thinking into the healthcare system requires both stakeholder engagement and ability from healthcare leaders. Ferreira et al. (2020) argued that students seeking to enter the healthcare industry should receive cross-cultural design thinking training as part of their undergraduate or graduate level coursework. Based on research, Ferreira et al. (2020) asserted that artificial intelligence use in the healthcare industry has the potential to positively impact protocols of combatting breast cancer but developing artificially intelligent technology that works in a cross-cultural context requires developers and healthcare leaders to use a design thinking framework. To evaluate their theory on the usefulness of cross-cultural design thinking at an undergraduate level, Ferreira et al. (2020) provided a course to students. To assess design thinking ability in a cross-cultural context, Ferreira et al. (2020) collected data using a questionnaire. Ferreira et al. (2020) found that the students reported substantial growth in the area of design thinking, specifically in a cross-cultural context. However, the

opposition to design thinking would be over templated leadership practices and an over-dependence on artificial intelligence to inform healthcare decision-making (Pope-Ruark, 2019).

Lean Healthcare Leadership

Lean leadership strategies focus on reducing waste and increasing productivity (Patri & Suresh, 2018). The healthcare industry, which focuses on cost reduction and often experiences shortages of staff time, could benefit from lean leadership techniques (Efe & Efe, 2016). In a 2016 study, Efe and Efe (2016) sought to determine if lean leadership strategies could benefit a hospital emergency department in terms of productivity, organizational efficacy, and patient care. Efe and Efe (2016) utilized an approach which assessed patient value in individual organization and leadership decisions. Efe and Efe (2016) assessed patient value in markers such as equipment availability, quality of care instructions, approachability, and other factors influenced by the hospital emergency department environment or staff. The researchers found that the decision-making trail and evaluation laboratory (DMTEL) method successfully assessed the value of certain lean leadership principles. The availability of equipment value was the most impactful on patient experience, stating that patients highly value the ability to use equipment when necessary. This marker influenced patient experience by reducing wait times and improving overall efficiency (Efe & Efe, 2016). Efe and Efe (2016) suggests that implementing a lean leadership strategy in healthcare emergency rooms could influence patient experience, and that leaders should focus resources on ensuring an adequate level of equipment availability.

Though research demonstrates substantial benefits associated with utilizing a lean leadership framework in the healthcare context (Efe & Efe, 2016; Po et al., 2019), there is a gap in research between lean leadership concepts in healthcare and the execution of lea leadership practices in a clinical setting (Van Rossum et al., 2016). In order to address the gap in research, Van Rossum et al. (2016) sought to develop a tool kit for healthcare leaders looking to implement lean leadership practices in their healthcare facility. To achieve the research objectives, Van Rossum et al. (2016) performed a cross-sectional study at a Dutch medical center associated with a university. Van Rossum et al. (2016) hypothesized that transformational leadership would be required to ensure a top-down commitment to lean leadership. Meanwhile, more distributed team leadership was expected to be associated with bottom-up organizational commitment.

To analyze the data, Van Rossum et al. (2016) conducted correlation and regression analyses. The results of the analysis showed a positive correlation between the utilization of transformational leadership and the development of team leadership styles. This dual approach facilitated both top down and bottom-up organizational change within the healthcare facility. Both leadership styles were positively correlated with lean leadership implementation in the healthcare setting. Additionally, Van Rossum et al. (2016) found that the flexibility of the workforce was strongly positively correlated with successful implementation of lean healthcare leadership.

A flexible workforce is associated with organizational agility and was connected to lean leadership by Van Rossum et al's. (2016) research findings. Expanding on understanding of organizational flexibility and healthcare leadership, Mishra et al. (2019)

argued that challenges exist for healthcare organizations seeking to balance agility and leanness. Mishra et al. (2019) further argue that the rise of chronic diseases like cardiovascular disease and diabetes increases the strain on healthcare systems and require a combination of agility and leanness to successful lead in a cost-effective manner. To assess the balance between agility and leanness, Mishra et al. (2019) utilized a discussion group to gather data on the multi-Dimensional scaling method. The method is used to visualize competing interests, like healthcare agility and leanness. The case study utilized a case study approach and gathered data using focus groups. Mishra et al. (2019)'s findings focused on the supply chain leadership and found that agility in healthcare can be achieved through better product bundling and product assortment. Furthermore, Mishra et al. (2019) found that standardizing the process for dispersing critical medications to patients could improve the overall efficiency of healthcare organizations and patient outcomes.

Though there are potential cost efficiencies associated with healthcare leadership, there are other factors which should be considered when assessing hospital efficiency (Hallam & Contreras, 2018; Mishra et al. 2019). Competing interests, such as quality of care and patient satisfaction should also be assessed when determining the benefits of lean healthcare leadership strategies (Poksinka et al., 2017). According to Poksinka et al. (2017), there was a gap in research regarding the impact lean healthcare leadership strategies had on patient satisfaction with their healthcare services. To address the gap in research, Poksinka et al. (2017) utilized a case study methodology with both qualitative and quantitative approaches. Poksinka et al. (2017) conducted a total of four case studies,

two of which were qualitative and two were quantitative. The sample included 23 primary care centers which utilized a lean leadership strategy and 23 centers which did not use a lean leadership strategy as a control group. The results of the study indicated that, in general, lean leadership strategies are targeted at cost-efficiency functioning and largely did not consider the patient experience. The quantitative case studies demonstrated no correlation between lean leadership strategy and patient satisfaction. Additionally, Poksinka et al. (2017) found that there was no change in patient satisfaction overtime.

While Poksinka et al. (2017) results do not show positive benefits associated with a lean leadership strategy from the perspective of patient experiences, they also did not show a negative correlation between lean leadership and patient experience. As stated by Poksinka et al. (2017), lean leadership strategies are primarily focused on achieving cost-efficiencies. If the strategies are successful at achieving cost efficiency without sacrificing patient experience, then it could be argued that the lean strategies are positive overall. Furthermore, Poksinka et al. (2017) study did not focus on how lean leadership strategies impacted patient costs. Further avenues of research should explore if the cost-efficiencies associated with lean leadership strategies are transferred to patients, and if the cost saving impacts patient experience.

Evidence Based Leadership

Though many other countries have adopted evidence-based leadership approaches in healthcare, the United States has been slow to adopt the widespread practice (Gou et al., 2019). Evidence-based healthcare leadership is defined as leader

decision making about employees, teams, and organizations based on the judicious application of four sources of data. According to Gou et al. (2019), the ideal four sources of information include scientific research, organizational data, professional expertise, and stakeholder feedback. The concept of evidence-based leadership in healthcare is derived from evidence-based medicine, which makes medical decisions based on specific sources of information. In a quantitative study using analysis of moment structures, Gou et al. (2019) determined that administrators who intended to use evidence-based healthcare leadership practices significantly predicated their attitudes towards decision making and their perceived level of behavior control. Educating healthcare leaders on evidence-based leadership strategies positively mediated their attitudes towards the strategy and their intention to use it.

Other researchers (Agnihothri & Agnihothri, 2018; Janati et al., 2018) acknowledged the same gap in academic and professional understanding of evidence-based healthcare leadership within the United States that was acknowledged by Gou et al. in 2020 .Elaborating on the details provided by Gou et al. (2019), Janati et al. (2018) state that evidence based healthcare leadership is a relatively new practice within the United States and requires a paradigm shift within healthcare leadership systems. The researchers state that a strength of evidence-based healthcare leadership is it bridges the gap between theory and practice and improves organizational and leader performance. To facilitate greater adoption of evidence-based healthcare leadership, the researchers quantitatively assessed the attitudes and perceived barriers to adopting EBMgt at a specific Iranian hospital. To conduct the study, the researchers performed semistructured

interviews with 45 participants including leaders, policymakers, and researcher leaders. The data results indicated that most participant that evidence-based leadership was a positive practice and would result in better organizational functioning. Some barriers to implementation included a lack of skills, a lack of available data sources, and a lack of training. Recommendations for practice included holding more trainings on evidence-based leadership practices and developing data frameworks to facilitate hospital or facility level adoption.

As previously mentioned, a lack of skill and understanding regarding data collection for evidence-based leadership is a challenge for healthcare leaders (Janati et al., 2018; Aloni et al., 2018). Part of the challenge for healthcare leaders stems from a lack of understanding about the link between data sources, analysis, and subsequent leader decision making (Roshanghalb et al., 2018). To clarify the connection between data sources, analysis, and leadership decision making, Roshanghalb et al. (2018) conducted a systematic review of literature on evidence-based leadership in a healthcare setting. Utilizing a rigorous methodology, Roshanghalb et al. (2018) selected only articles for empirical journals with a robust and time-tested method. After applying exclusion criteria, Roshanghalb et al. (2018) included 30 studies in their review. The studies were conducted between 2009 and 2014. Seventy percent of the studies were quantitative studies assessing the effectiveness of and implementation strategies for evidence-based leadership in a healthcare setting. The study results indicate that the main kinds of decisions made through evidence-based leadership are performance assessment, staff

performance assessments, change leadership, organizational knowledge, and strategy planning.

In terms of adoption of evidence-based healthcare leadership frameworks, certain factors influence whether healthcare leaders will adopt the strategies (Janati et al., 2017). To assess the factors of adoption, Janati et al. (2017) considered the facilitators, barriers, sources of evidence, and process of the healthcare organization. Using both purposeful and snowball sampling, Janati et al. (2017) conducted a Delphi study using semistructured interviews with participants. The results of the study indicated that numerous factors were related to utilization of evidence-based leadership strategies such as leader characteristics, environmental factors, team barriers, scientific research barriers, and training considerations. The study confirmed 46 factors which were related to evidence-based leadership in healthcare, suggesting the complicated and interconnected nature of leadership decision making. Overcoming the barriers to implementing evidence-based leadership requires addressing many of the 46 factors identified, and therefore interventions aiming to establish evidence-based leadership practices in a healthcare setting likely must utilize a multiple-pronged approach (Guo et al., 2017; Janati et al., 2017).

Healthcare Productivity

Healthcare costs in the United States are rapidly expanding, further extenuating the need for viable healthcare productivity strategies. However, there is a gap in literature on metrics and sub-classifications to define productivity metrics in a healthcare context (Kamarainen et al., 2016). Undertaking a pilot study of healthcare productivity metrics,

Kamarainen et al. (2016) assessed the value of varying healthcare metrics in a healthcare setting. One of Kamarainen et al's (2016) key findings what that healthcare metrics need to have varying viewpoints which include unit, organization, and system level viewpoint assessments. The assessment metrics proposed by Kamarainen et al. include assessments based on patient outcomes, assessments on patient need satisfaction, and metrics based on financial benchmarks combined with value outputs.

Measuring productivity in the healthcare sector is notoriously difficult (Boussemart et al., 2020; Sheiner & Malinovskaya, 2016). Healthcare productivity must be considered from the perspective of decreased cost and increased care, but other factors such as patient satisfaction and long-term patient outcomes must be considered and measured. Sheiner and Malinovskaya (2016) noted that there was a gap in literature surrounding the productivity impacts of recent United States healthcare initiatives, such as the affordable care act. Understanding first if costs have come down, and second if care has increased requires an overall assessment of the healthcare system productivity, including consideration of the above-mentioned additional inputs. Using a literature review format, Sheiner and Malinovskaya (2016) describes the different methodologies for assessing healthcare productivity including diseased based approaches where researchers assess healthcare productivity using data on specific marker diseases, or patient care quality indexes. A common approach to assessing healthcare productivity includes a cost analysis of indicator procedures and treatments. Sheiner and Malinovskaya (2016) conclude by stating that there is value to utilizing a combined assessment approach and found that the affordable healthcare act was likely to result in

long-run healthcare productivity improvement utilizing a number of different health productivity assessment frameworks.

Difficulties measuring productivity in the healthcare sector extend to a lack of reliability associated with mearing productivity in healthcare utilizing a contribution to gross domestic product (GDP) framework (Blomqvist & Busby, 2017). According to Blomqvist and Busby (2017) healthcare productivity measurement through an assessment of contribution to GDP results in the mistaken impression that the healthcare industry has not improved in productivity over recent decades. Utilizing a literature review format, Blomqvist and Busby (2017) assesses strategies for measuring the productivity of the healthcare system. The researchers assert that contributions from the healthcare system are better assesses utilizing an input in, inputs out framework which implies that the aging population and greater number of individuals served through the healthcare system is a measurement of productivity increases. Despite the significant contributions from the healthcare sector, Blomqvist and Busby (2017) found that there are inefficiencies in the system Studies included in the literature review suggest that Canada, the focus of the study, could increase healthcare productivity by focusing on adopting cost-effective technologies. Blomqvist and Busby (2017) further assert that research and development can serve an important role in healthcare productivity, but only if the country has the infrastructure to cost-effectively support research and development. This finding aligns with the research question. However, opposing viewpoints may be that research and development do not serve an important role in healthcare productivity.

Metrics

Though there are numerous success metrics associated with the healthcare industry, such as patient outcomes and patient experience metrics, productivity is an essential metric to understanding the effectiveness of a healthcare system (Boussemart et al., 2020). Analysis of productivity often occurs at a firm level or a country level, but Boussemart et al. (2020) sought to measure productivity at an industry level, specifically the Chinese healthcare industry. The purpose of the industry level analysis was to determine the drivers of healthcare productivity so that they can be attributed to specific inputs and expanded upon at a national level. In a quantitative study of healthcare productivity, the researchers utilized a Luenberger productivity indicator to assess the relevancy of specific variables to healthcare productivity. The results of the study indicate that China's productivity growth in the healthcare sector were primarily driven by technological innovation. These results provide useful insights to other countries attempting to increase productivity in the healthcare space. Additionally, the results are consistent with the findings of Efe and Efe (2016), who found that equipment availability was an important indicator of patient experience. Both studies suggest that investing in equipment and technology could drive healthcare productivity.

Healthcare systems with similar components can have different objectives and different resulting productivity levels (Atella et al., 2019). Comparing differing national healthcare policies and objectives in relation to their resulting productivity can provide useful insights on the drivers of productivity from a policy lens. Atella et al (2019) conducted a comparative analysis between the English and Italian healthcare systems with the purpose of understanding their impact on productivity. Atella et al (2019)

measured productivity growth of the two systems using a rate of change of outputs over a rate of change of inputs. Outputs include patients treated, among other metrics, and input are typically financial and related to human resources. The comparative analysis revealed that the English healthcare system increased at a rate of 10 percent between 2004 and 2011, while the Italian healthcare system progressed at a rate of 5 percent over the same period. In attributing the faster rate of increase in the English system, Atella et al (2019) stated that, rather than focusing specifically on reducing cost, the English system focused on increasing activities, reducing wait times, and improving quality of care. These results suggest that improving healthcare productivity might be optimizable when focusing on quality and efficiency of care over cost reduction.

Cost-Efficiency

There are numerous methods for assessing cost efficiency in healthcare (Atella et al, 2019; Asghar et al., 2019). Atella et al. (2019) utilized an "inputs in, inputs out" framework for assessing cost productivity in healthcare, while Asghar et al. (2019) tested the effectiveness of the cost Malmquist index. The cost Malmquist index assessed technical, scale, and allocative efficiency change in healthcare systems. Asghar et al. (2019) utilized Malmquist index data from the 55 countries included in the index and found that cost productivity in healthcare was most impacted by technological changes. The idea that cost productivity is impacted largely by technological progress was echoed by Boussemart et al. (2020) who came to similar conclusions when assessing China's healthcare system productivity improvements. Asghar et al. (2019) found that other factors influenced cost productivity in healthcare, including allocative efficiency and

price change, and scale efficiency. Among the other assessed factors, scale efficiency was substantially impactful on healthcare cost productivity. In Asghar et al. (2019) study, scale efficiency refers to the cost efficiencies associated with larger, more integrated healthcare systems that have the ability to distribute costs among a large number of customers and facilities. Examples of scale efficiencies can be seen in countries with national health systems, like the United Kingdom's National Health System (Boussemart et al., 2020).

The Malmquist index is commonly utilized in assessing healthcare systems. As previously mentioned, Boussemart et al. (2020) and Stefko et al. (2016) both utilized the index to study healthcare productivity. Kim et al. (2016) conducted a similar study utilizing a modified Malmquist index approach. Kim et al. (2016) assessed the productivity changes in 30 Organization for Economic Co-operation and Development (OECD) countries. The assessment period was 2002 through 2012. The assessment determined that there have been healthcare productivity improvements in most of the 30 countries assessed. Kim et al. (2016) attributed the healthcare productivity improvements to a combination of efficiency and technical improvements. These improvements relate to hospital functioning protocols and better implementation of healthcare technologies. For countries which have not demonstrated significant improvement between 2000 and 2012, Kim et al. (2016) recommended that the country leadership consider what practices are best achievable given the country's economic conditions. For example, Kim et al. (2016) found that less healthcare productivity increases occurred in countries with income inequality.

In the United States, there is a disparity between spending levels and productivity levels. Unlike other industries, where spending correlates with increased quality and speed of production, higher funding levels in the healthcare industry are not necessarily associated with improved patient outcomes or decreased treatment times (Chandra et al., 2016). Quantitatively using hospital data, Chandra et al. (2016) developed a model for determining hospital productivity using a number of indicators as independent variables. Data was gathered using Medicare Part A claims for the years 1993 through 2007. The results of the study indicate that, hospital productivity is difficult to model, and the data often results in ideocratic results. For example, highly ensured patients are not particularly price sensitive, and therefore there is sometimes little connection between revenue input and quality of care outputs. Furthermore, there is limited data available to customers regarding organizational quality.

Employee Leadership

Nurses and other non-medical doctor staff play an influential role in the productivity of a healthcare organization (Coetzee, 2019; El Haddad et al., 2017; Juanamasta & Yuwono, 2018; Xue & Tuttle, 2017). Costs associated with medical doctors are high, and healthcare facilities increasingly use nurses and other staff people to perform routine health maintenance of patients (Emmons, 2019; Munro et al., 2019). Using a cross sectional analysis, Xue and Tuttle (2017) assessed the productivity of nurses in a healthcare setting by examining the number of patients they saw a week and assessing the overall organizational productivity that resulted from their work. According to the results, nurses saw an average of 80 patients a week and 64 percent of the included

nurses had patients which they saw exclusively. The overall productivity of nurses was mediated by the level of autonomy granted to the nurses to perform routine healthcare maintenance and the extent to which nurses were responsible for managing the facility billing practices (Xue & Tuttle, 2017). These results suggest that nursing staff play a vital role in healthcare productivity, and that healthcare productivity might be improved by granting nurses an appropriate level of autonomy and reviewing the institutional billing practice with the aim of maximizing nurses' ability to see patients.

One vital component of healthcare productivity is the lead leadership of social and cultural differences between patients, nurses, doctors, and administrators. Altakroni et al. (2019) stated that a lack of cultural competency among patients and medical staff can result in inefficiencies and reduced patient care standards. To determine how cultural differences impacted patient care, Altakroni et al. (2019) studied the socio-demographic determinants of their productivity. Altakroni et al. (2019) utilized a quantitative methodology with a cross-sectional survey of 256 participating nurses. The study aimed specifically on collected data regarding employee life factors which might influence their productivity at work. Interestingly, Altakroni et al. (2019) found that many life circumstances anecdotally associated with lower productivity did not result in any decrease in employee productivity. For example, Altakroni et al (2019) found that nurses with children under the age of five were actually more productive than nurses who did not, on average. Unmarried nurses were found to be more productive then married nurses.

The concept of organizational excellence is often tied to employee performance and organizational innovation levels. Frameworks which focus on assessing the

connection between organizational excellence, as defined by innovation and employee performance, can be used to make a connection between organizational excellence and organizational productivity (Mohamed et al., 2018). In a quantitative study utilizing structural equation modeling, Mohamed et al. (2018) considered data from 256 employees of the Abu Dhabi health authority. The results of the study indicated that organizational excellence had a positive impact on the productivity of the organization. Secondly, employee performance was a significant predictor of organizational productivity. These results suggest that employees play a key role in organizational productivity, and that organizations seeking to improve productivity may wish to consider opportunities to improve and train employees. These results align with the results of Atella et al. (2019), which found that productivity increases were tied to organizational improvement rather than an emphasis on cost savings.

Preserving the physical, mental, and emotional well-being of nurses is a critical problem for many healthcare systems in the United States (Goodwin & Richards, 2017). Nursing staff are often expected to work long hours under physically and emotionally demanding conditions and facilities often struggle to maintain sufficient staffing levels (Goodwin & Richards, 2017). Due to the challenges associated with nursing as a profession, Goodwin and Richards (2017) argue that hospital leadership staff must actively promote self-care strategies among its nursing staff. For the purpose of exploring self-care best practices, Goodwin and Richards (2017) conducted a review of recent literature. The review of recent literature suggested that best practices for maintain the well-being of nursing staff includes encouraging the same attention to individual health

that is provided to patient health, including adherence to yearly examines and nutritional assessments. Additionally, Goodwin and Richards (2017) recommend that nursing staff receive training and support to develop skills around mindfulness and self-soothing behaviors to alleviate physical and emotional distress.

Due to the increasingly globalized nature of healthcare, there is a need for healthcare leadership to exhibit and value intercultural competency (Moore et al., 2017). Intercultural competency is highly relevant the healthcare facilities because they have a diverse population of staff and patients and need to provide a baseline level of care and comfort to everybody (Moore et al., 2017). Utilizing a systematic review format, Moore et al. (2017) examined research on strategies for training healthcare leadership teams on intercultural competence. The practices focused not on teaching intercultural competence directly but on encouraging students to be interested in intercultural competency and continuously improve their own skills. The study results found that healthcare leadership needed to be dedicated and intentional with training intercultural competency. A course approach worked in a healthcare setting if the course included opportunities for students to develop competencies but was not the only effective method of increasingly organizational intercultural competency. A top-down focus on intercultural competency also was effective (Moore et al., 2017).

The need for better integration of intercultural competency into healthcare leadership and practice was also established by Abad-Jorge et al. (2018) and others (Bein, 2017). Utilizing a literature review framework, Abad-Jorge et al. (2018) assessed literature on strategies for increasing and incorporating intercultural competence. The

literature addressed a greater need for intercultural competency in education programs, which was as similar finding to Ferreira et al. (2020). In assessing educational programs which integrated intercultural competence into practice, Abad-Jorge et al. (2018) found that student feedback played a critical role in tailoring the program to meet the needs of the students and enhanced the educational experience and course effectiveness. Overall, Abad-Jorge et al. (2018) found that the literature supported integrating cultural competency into the educational framework, both as a separate course and through general practices of intercultural competency in the classroom. Implementing such programs required concerted efforts from the educational institution and support from healthcare organizations served by the educational institutions (Calloway-Thomas et al., 2017).

Innovation

No matter the healthcare system employed, nations are under increasing pressure to meet productivity standards due to rising costs of healthcare, dynamic patient needs, and limited healthcare budgets (Marjanovic et al., 2017). Some researchers have posited that innovation can successfully drive productivity gains in the healthcare sector (Marjanovic et al., 2017). Innovation in this context is defined as products, technologies, or services which are new to a healthcare system, or can be applied in a new way, which are aimed at improving affordability and care. In a national British organizational assessment, Marjanovic et al. (2017) considered how different systems can work together and innovate to produce higher quality results in the National Health Service. Based on the results of the organizational assessment, Marjanovic et al. (2017) determined the

following best practices related to driving innovation in a healthcare context. The practices include using interdependences of organizations as an assess, developing macro-scale relationships, using structural and behavioral intervention, coordinating innovation with other agencies, and adopting a portfolio healthcare approach.

Substantially expanding upon how innovation can be encouraged and nurtured in a healthcare setting, Marjanovic et al. (2018) conducted a systematic analysis of literature on innovation after completing an organizational assessment of innovation in a healthcare context one year previously (2017). The systematic analysis of literature considered a number of recent studies related to healthcare innovation. Marjanovic et al. (2018) coalesced the study results into one cohesive set of findings on how to nurture innovation in a healthcare context. The study findings indicated that innovation could be nurtured by considering the complete package of institutional options related to innovation and selecting cohesive interventions which work in conjunction and complementary to existing or newly implemented interventions. Furthermore, Marjanovic et al. (2018) found that innovations needed to be considered in an organizational context and not all innovation interventions would be received optimally or positively in all contexts.

Numerous studies related to healthcare productivity linked innovation, technology, and healthcare efficiency (Marjanovic et al., 2018; Kim et al., 2016). Okaunde and Osmani (2018) came to a similar conclusion, finding a connection between technology and healthcare productivity. However, Okaunde and Osmani (2018) emphasize that the technology utilization is not restricted to advancing medical technology or new testing devices. Additionally, healthcare technology includes both

medical devices and technologies commonly used in other industries to increase productivity, like information and communication technologies. Using a literature review format, Okaunde and Osmani (2018) explore the definition of healthcare productivity and the inputs to healthcare productivity, like drug devices, medical devices, communication technology, data leadership, and other platforms for managing patient health. Okaunde and Osmani (2018) further asserts that the definition of healthcare productivity varies between nations, as countries have different funding mechanisms for their healthcare systems which come with different monetary inputs from customers or nations.

While some productivity factors, such as innovation, can be implemented within a clinical hospital setting, other productivity factors call for a varying of treatment locations (Castor et al., 2020). Though previous researchers discussed the economies of scale associated with nationalized healthcare delivered through centralized hospitals, Castor et al. (2020) argued that healthcare can be productively delivered in other settings, such in people's residences, if the circumstances are properly lead. Utilizing an observational follow-up study of hospital care and home care for 32 children, Castor et al. (2020) determined that home care resulted in cost and productivity savings for the healthcare. The productivity impact of home care compared to hospital care is particularly substantial if elements such as parent absenteeism from work is considered (Castor et al, 2020). Castor et al. (2020) collected data utilizing a survey approach and conducted a comparative analysis of home care and hospital care.

Big Data in Leadership

The purpose of this qualitative multiple case study is to explore the strategies that health care departmental leaders use to lead employee labor productivity performance. Big data offers one way in which to understand productivity performance (Baldominos et al., 2018). Productivity performance can be measured in several ways by healthcare leaders and leaders (Baldominos et al., 2018). These include factors like employee efficiency, patient outcomes, wait times, and activity levels (Baldominos et al., 2018). Big data serves an important function in healthcare leadership, and strategies for visualizing bit data are crucial for organizational success (Senthikumar et al., 2018). Senthikumar et al. (2018) argues that majority of data produced by healthcare organizations are unstructured, and therefore require careful processing strategies. Using a systematic review framework, Senthikumar et al. (2018) considered the visualization tools which could beneficially be used by healthcare leaders to visualize unstructured healthcare data. Senthikumar et al. (2018) found that 76 studies met the inclusion criteria. The results of the study suggest that the big data challenges relating to healthcare are data security and privacy issues, as well as visualization. Senthikumar et al. (2018) recommendations for practice include utilizing the big data visualization tools available on the market such as Nodebox and Float. In terms of data leadership, Senthikumar et al. (2018) note that there are substantial regulations around data security and privacy, and healthcare leaders must have an in-depth understanding of data security protocols.

Strategic use of technology by healthcare leadership teams can improve outcomes and experiences for patients (Minniti et al., 2016). As previously mentioned, instituting

highly professionalized healthcare leadership can have to unintended consequence of suppressing patient voice (Linnander et al., 2017). To ensure that patients continue to have a voice in their health decision-making, Minniti et al. (2016) found that utilizing technology to collect patient reported data can improve outcomes. Minniti et al. (2016) argued that web-based technology platforms allow patients to communicate their needs following procedures and seek continuous improvement in care processes. Minniti et al. (2016) used an interactive patient reporting model called P-IHM (Patient-interactive Healthcare Leadership). Utilizing an experimental design, Minniti et al. (2016) found that the P-IHM system increased the customizability of individualized care and avoided unnecessary medical costs.

As previously mentioned, big data has broad implications for healthcare leadership through concerns related to data security and the ability of patients to participate in their care (Minniti et al., 2016; Senthilkumar et al, 2018). Utilizing and managing data is an important consideration of healthcare leadership, but big data can also be useful in making healthcare leadership decisions. According to Lame and Simmons (2018), big data enables healthcare leaders to run simulations to test the impact of healthcare decision making without impacting patients in the real world. Utilizing simulations could allow healthcare leaders to reduce, replace, or complement traditional strategies which focus on exploration through trial and error. These strategies have real world consequences which could impact patients. Using a literature review format, Lame and Simmons (2018) explore how simulation can be used to investigate, understand, and improve healthcare leadership. The results of the study indicate simulation can be

effective, quick, and low cost for leadership decision making exploration, but leaders should be cautious of the limitations and assumptions embedded in each analysis approach before implementing the policy solutions.

Though big data has successfully been utilized to enhance leadership strategies in numerous fields such as policy and business, utilization of data science for the leadership of the healthcare industry is still relatively unexplored by literature (Chiu & Yu-Chuan, 2018; Groves et al., 2016). According to Chui and Yu-Chuan (2018), data science can enhance the patient experience dramatically by improving outcomes and optimizing care regimes. By implementing technological platforms in healthcare facilities, leaders could improve outcomes and patient experience (Chui & Yu-Chuan, 2018). Chui and Yu-Chuan (2018) demonstrated the strength of healthcare leadership facilitated through data science in a study which examined an automated dose tracking system for adaptive radiation therapy. According to Chui and Yu-Chaun (2018), calculating the appropriate patient dose daily is a significant and time-consuming task which is liable to create error. According to the study results. Automated dose tracking systems resulted in higher facility efficiency and improved patient outcomes (Chui & Yu-Chuan, 2018).

With increased access to data leadership technologies and solutions, healthcare leaders are able to utilize patient data in new ways to optimize patient outcomes and improve healthcare productivities (Baldominos et al, 2017; Natarajan et al., 2018). In addition to utilizing healthcare information to make decisions about hospital leadership and patient care, healthcare leaders can utilize big data sets to forecast the potential usefulness of solutions into the future and identify data markers which might suggest

incoming inefficiencies (Baldominos et al., 2017). Baldominos et al. (2017) tested big data applications in a healthcare setting to determine their impacts on hospital productivity and leadership decision making. Baldominos et al. (2017) found that the data leadership system was able to provide intelligent recommendations to healthcare leaders that had positive impacts on daily productivity. Hospital leaders reported beneficial use of the system warning features for inefficiencies. These results suggest that data applications can have real-world impacts for healthcare leaders.

Big datasets also open new avenues for comparing healthcare facilities for the purpose of conducting a comparative assessment of individual facility productivity (Harle et al., 2016). There is a substantial quantity of research and data dedicated to assessing individual facility productivity. Until recently, that data was often kept within the facility or individually presented within journals. Though important, the lack of cohesion between healthcare assessments resulted in a disconnect between productivity research and productivity improvement in healthcare (Harle et al., 2016; Malik., Abdallah & Ala'raj, 2018). To address the gap, Harle et al. (2016) used data leadership and analysis techniques to collect and collate the healthcare data into a single dataset. This work has implications for healthcare practice which include assessing healthcare facilities based on the productivity of similar facilities and considering the characteristics which may result in higher or lower healthcare productivity.

In addition to providing crucial insights to healthcare professionals and leaders, big data can improve hospital productivity by providing information to patients which can help them lead their long-term health (Dimitrov, 2016). Using a systematic review

format Dimitrov (2016) reviewed wearable healthcare technology and its impact on individuals and healthcare productivity. As previously mentioned, the rise of chronic conditions in the United States (Buttorff et al., 2017) coupled with an aging population (Marcus-Varwijk et al., 2018) makes the overall healthcare burden substantial. Dimitrov (2016) found that there is substantial research to show that wearable devices can help individuals lead their weight, physical activity, cardiac health, and blood pressure. By helping individuals to lead these conditions, Dimitrov (2016) found that healthcare facilities experienced productivity benefits.

Nations professionalized the healthcare field differently, depending on the structure of the healthcare system (Linnander et al, 2017). According to Stefko et al. (2016), countries often have different health, economic, and social conditions which influence healthcare policy. However, a commonality across all national health systems is a focus on cost reduction and efficiency. Managing employee and institutional knowledge is a key function of healthcare leadership (Karamitri et al., 2017). Healthcare institutions use a variety of techniques to lead their productivity, including lean leadership, agile leadership, and design thinking (Roberts et al., 2016; Ferreira et al., 2020).

Carroll and Richardson (2016) highlight that a central point of design thinking is to establish individual's and organization's specific needs and pinpoint areas which need improvement. This framework benefits healthcare institutions be identifying areas of weakness envisioning a structure to lessen the weaknesses. In some cases, lean leadership can be useful for organizations seeking to improve productivity. Lean leadership is associated with a cost reduction, but it does not necessarily improve patient experience

(Efe & Efe, 2016; Poksinka et al., 2017; Van Rossum et al., 2016). Managing the productivity of healthcare organizations requires a balancing between cost productivities and improved efficiency from a patient perspective. Balancing dual objectives can be facilitated through evidence-based leadership, which considers multiple sources of data before concluding about organizational direction (Gou et al., 2019).

In addition to the strategic usage of healthcare leadership strategies, healthcare productivity is associated with specific characteristics such as: competent employees (Coetzee, 2019; El Haddad et al., 2017; Juanamasta & Yuwono, 2018; Xue & Tuttle, 2017), careful assessments of productivity using viable metrics (Boussemart et al., 2020), a balance between quality and cost efficiency (Atella et al, 2019; Asghar et al., 2019), and innovation (Marjanovic et al., 2017). Innovation was found to be central to healthcare productivity, as it created an environment where leaders were able to test new ideas and strive for improvement (Marjanovic et al., 2017). Nurses and hospital staff played a large role in productivity, so proper leadership of human resource was associated with productivity. Finally, Atella et al (2019) found that the largest improvement in healthcare productivity arose when leaders focused on improving quality and efficiency, rather than reducing cost.

Transition

The previous section summarized recent literature related to lean strategies, leadership, healthcare productivity, and data within healthcare organizations. Effective healthcare productivity is affected by organizational factors inclusive of leadership knowledge, motivation, tactic, policy development, data review, and strategy progression.

Healthcare organizations' leaders identify tactics that could be strategically deployed and used to monitor organizations' productivity performance. In the literature review I evaluated the transformational leadership theory and how its alignment with the policy development theory facilitates development and adoption of tactics inclusive of leadership roles, data review, and performance monitoring to achieve desired outcomes.

Section 2 includes a comprehensive review of the researcher role, research population, and research method and design. The section with illustrate my role as the researcher to meet ethical research requirements. Section 3 contains a presentation of research component findings inclusive of interviews, organizational processes, implications to professional practice, impact to social change, further recommendations, and research conclusions.

Section 2: The Project

Section 2 will include a description of (a) the purpose statement, (b) role of the researcher, (c) participants, (d) research method and design, as well as (e) population and sampling. I addressed the aspects of ethical research, data collection instrumentation, data collection techniques, as well as validity and reliability in conjunction with the previously identified sections.

Purpose Statement

The purpose of this qualitative multiple case study was to explore the strategies that healthcare organizations' leaders use to effectively identify, deploy, and monitor departments' goals for improving their overall organizations' performance. The targeted population included 20 departmental leaders who had developed, deployed, and monitored progress against the derivative departments' goals. The geographic location was the Western region of the United States within acute healthcare organizations that have successfully demonstrated success in improving their organizations' departments' productivity through achieving the organization's leaders' related goals for departments' productivity improvements. Using or adapting the study findings could be the catalyst for positive social change by encouraging better strategic leadership practices that enable the public to access a more efficient and effective healthcare system for benefiting communities' citizens and families.

Role of the Researcher

As the researcher, I conducted data collection, participant coordination, as well as validation that was supported by research design and methodology. According to

Thurairajah (2019), the research must be comprehended by the researcher from the personal extent of involvement within the research process to manage biases and involvement. Responsibility of the sole researcher and data collector led me to serve as interviewer, assessor, and principal data collector of participant responses and organizational documentations. The primary expectations of the researcher were to provide comprehension and align all aspects of the research question to the overall research project. As discussed by Thurairajah (2019), methodology of research alignment, bias limitation, and scrutinization was an expectation of the qualitative researcher. As the, researcher I assumed sole responsibility for data analysis, research processes, methodologies, management of limitations, presentation of results, and adherence to ethics.

Within this study, I evaluated strategies related to effective identification, deployment, and monitoring of productivity goals that potentially improve organizational performance. The research topic was selected based on my experience within healthcare operations and the expectation to effectively manage departmental productivity. Lyubovnikova et al. (2018) discussed how shared experiences contributed to the comprehension of organizational dynamics and team theory.

To adhere to principles of ethical research, I referenced the *Belmont Report* to ensure that all participants are informed, that there was an appropriate assessment of risks and benefits while adhering to the appropriate selection of participants. The *Belmont Report's* ethical principles of respect, beneficence, and justice guided the appropriate research protocol for human participants in social research (Friesen et al. 2017). I used

the *Belmont Report* principles to establish the protocol for my research study. The primary principles of the *Belmont Report* are autonomy, beneficence, and justice (Kamp et al., 2019). The process was defined through obtaining consent of participants to illustrate respect. I also conducted an assessment to evaluate any potential risks and benefits to the study participants with a goal to provide a positive experience of current and potential participants.

Adherence to qualitative research principles and guidelines was achieved by removing personal biases and establishing expected research protocols. As discuss by Thurairajah (2019), the removal of personal biases and establishment of standard research processes promotes viable qualitative research. As part of the research protocol, I ensured data collection processes were initiated to mitigate bias. Bracketing was enlisted to suspend preconceptions during the interview process. According to Tufford and Newman (2012), bracketing by the researcher reserves biases from previous experiences and misconceptions. The research interview was conducted using a structured qualitative interview process using sequenced open-ended questions. The interview pool contained 20 participants with experience specific to managing healthcare productivity relative to the specific business problem. The data collection process began once I gained clearance from the Institutional Review Board (IRB). The interview protocol was mapped to include Zoom and telephone interviews of the 20 participants. The informed consent process included processes related to pre and post interview actions (see Appendix A). A clearly defined interview process and informed participants potentiates the return of valuable information (Dodds et al., 2018). To ensure qualitative research ethics were

adhered to, I followed recommendations of the *Belmont Report* and guidelines discussed by Roth and Unger (2018) related to protection of the human subjects aligned to principles of: respect for persons, justice, and beneficence. The guidelines were managed through the process of informed consent, selection of subjects, as well as assessment of risks and benefits.

Participants

Ensuring research reliability and validity required selecting the appropriate participants that aligned to the research question. Englander (2012) noted that ensuring participant selection and research question alignment supports validity and is the primary phase of the interview process. The participants of this study were healthcare organization leaders from the Western United States. The participants of the case study were 20 healthcare leaders who effectively identified, deployed, and successfully monitored productivity goals with improved organizational performance.

I researched healthcare organizations within the Western United States to find insight into potential participants processes of productivity and organizational performance management. I identified organizations that have departments dedicated to reviewing productivity and performance outcomes with a formalized education plan for healthcare leaders. The leaders for the selected departments were contacted by e-mail to establish participant and Zoom interview potential.

The interviews were conducted through the Zoom platform using a single participant process to gain insight into participant experiences, processes, and operational methodology. I provided honest, direct, and clear lines of communication with each

participant to build trust and the willingness to engage in the research study. According to Dodds et al. (2018) and Tufford and Newman (2012), lack of trust within the interview process places limitations on data collection and valid information. I established an effective researcher relationship by collaborating with the participants' work schedules and establishing alternatives to traditional face to face interviews. Research honesty and ethical principles were implemented throughout the research process according to Friesen et al. (2017).

Research Method and Design

Research Method

The qualitative research methodology was used to explore strategies healthcare leaders use to identify and monitor productivity goals to improve organizational performance. I established that the qualitative method was appropriate based on the constructivist framework of understanding a phenomenon, and the use of flexible data collection to encourage depth in the information collected from the participants. According to Lampard and Pole (2015), the qualitative method provides answers through exploratory methods to understand experiences and phenomenon. The justification for use of the qualitative method is supported by the need to comprehend experiences of the research participants (Edmonds & Kennedy, 2016). As suggested by Yin (2017), I evaluated participant experiences and phenomenon within discussions, stories, and research questions response details.

The qualitative methodology enabled the researcher to dissect meanings within individual experiences. The researcher collected data from participant experiences to

evaluate similarities and meanings within descriptions (Edmonds & Kennedy, 2016). Implementation of a qualitative method supports the collection of data through discussion and experiences (Sherry, 2013). As discussed by Edmonds and Kennedy (2016) and Sherry (2013), use of a qualitative methodology provides insight and reflection of research participant experiences. The implementation of a qualitative research methodology is more appropriate to explore strategies used to manage and improve productivity performance in healthcare, use of a quantitative methodology would only be appropriate if examining relationships. The quantitative research method is a post-positivist approach to scientific inquiry wherein variables are measured to determine their characteristics or relationships (Babones, 2016). According to Babones (2016), the quantitative methodology is primarily used to evaluate relationships among variables and test a defined hypothesis. The mixed method approach is used to study constructivist framework, as opposed to a complex integrative framework. The mixed method process was not used for this study, as defined by Bryman (2017) the mixed method is used to test hypothesis of quantitative and qualitative data.

Research Design

I used a qualitative multiple-case study design. The selection of multiple sites and individuals with the purpose of exploring processes, methods, and outcomes supported the selection of a multiple-case study. The case study design facilitates exploration into experiences of the participants using interviews and documents (Yin, 2017). According to Yin (2017), the use of the case study design is appropriate when attempting to comprehend phenomena of a select group. As discussed by Berends and Deken (2019),

using a qualitative multiple-case study design is beneficial in addressing the defined research question and comprehension of organizational processes.

Use of the multiple-case study design was chosen after evaluation of the ethnography and phenomenology design. However, since the study was not evaluating patterns within a group, the ethnography design was not appropriate for this study. As discussed in Goldstein et al. (2014), ethnography design is used to study adoption of like actions or shared patterns within a group. The study was not focused on examining lived experiences which determined that phenomenology was not an appropriate design for the current research. According to Thomas (2021), phenomenology evaluates collected knowledge related to experiences of phenomenon within a culture.

Ensuring data saturation within the research process enhanced validity of the data and analysis. According to Lowe et al. (2018), data collection requires sufficient collection or saturation to support research validity. Implementation of a data saturation process ensured finalization and diligence of the research process. To potentiate data saturation, I reviewed all interview data as a cross check. As recommended by Fusch and Ness (2015), implementation of member checking during the interview process improved accuracy and validity. I used Fusch and Ness (2015) to implement a process of reviewing transcripts, read back of responses, validation of interpreted participant responses, and continuous checking until no new data was obtained. Lowe et al. (2018) supports the process of member checking to ensure the appropriate level of data saturation.

Population and Sampling

The population for the defined study consisted of individuals in the Western region of the United States within healthcare organizations that had successfully demonstrated success in improving their organizations' departments' productivity through achieving the organization's leaders' related goals for departments' productivity improvements. Purposeful sampling was used to evaluate and recruit potential participants with the desirable knowledge and organizational experience. The purposeful sampling methodology supported the selection of a specified research sample through the use of criteria to select participants (Bungay et al., 2016; Coyne, 1997). The use of purposeful sampling was suitable to use in this qualitative research study because of the effectiveness to target participants based on the research context and problem while evaluating phenomenon. To achieve data saturation, I interviewed 20 hospital leaders within the Western region of the United States who used strategies to effectively deploy and monitor departments' productivity goals to improve their overall organizations' performance. I contacted healthcare leaders who have oversight of facility operations and organizational outcomes. The rationale for participant selection depended on the ability to manage productivity goals, and the leadership skills to strategically develop improvement measures. The selected leaders ensured compliance to ethical and regulatory standards as outlined by facility policies and standards.

The selection of research participant sample size was based on what was deemed as an appropriate sample for research validity and saturation. Daggenvoorde et al. (2013) suggested that a minimum of 15 participants is required to achieve an appropriate

research sample. Dworkin (2012) stated that a wide range of five to 50 participants as an acceptable participant research sample within qualitative research. However, Fusch and Ness (2015) argued that there is no relevance to the sample size within qualitative research but that the process should focus on gathering reliable data. Reliable and rich data collection is not achieved through the process of extending the participant size for comparison reasons. The research process should encompass a process of sample size selection that potentiates data saturation (Fusch, & Ness, 2015). I selected the process of sample size selection based on Fusch and Ness's (2015) recommendations by selecting 20 participants to achieve data saturation.

Ethical Research

Ethical research involves coordination and cooperation between the researcher and participants while adhering to research guidelines. The interview process was not initiated until appropriate participant consents were obtained. Participants did not receive incentivization for participation in the study nor recognition for their organizations. The consents focused on individual rights and protection during the interview process as well as clarification of voluntary participation (see Appendix C). According to McGrath et al. (2019), the qualitative research interviews require detailed interview processes to ensure adherence to defined standards. I conducted the research using a defined interview protocol (see Appendix A) after gaining approval from the Walden University Institutional Review Board (IRB), approval number 08-25-21-0568675. The IRB process was used as a guide to conducting data collection and included the IRB approval number

once the approval process was completed. Consent request was provided via e-mail with follow-up phone calls to provide clarification and answer questions if needed.

During follow-up phone calls research participants were given the opportunity to express concerns regarding research participation and the opportunity to withdraw. Through the consenting process I informed the study participants that the process was voluntary and of the ability to withdraw from the study at any time without repercussions. Study participants could withdraw via e-mail, telephone, or verbal request during the interview process. Participants that withdrew from the study had their privacy maintained. According to Drake (2014), clarification of the research study while providing the opportunity for participants to withdraw should be inclusive of establishing a well-defined interview process and protecting participants rights.

Participant confidentiality and trust is crucial to obtaining reliable data. Adherence to participant privacy was discussed during the consenting process (see Appendix C). The participating organization and each participant were assigned a research code to ensure confidentiality during research publication. All collected data was saved and kept in a password protected file for a 5-year retention period. Protecting participant identity and securing collected data builds trust between the researcher and participant while protecting participant privacy (Wendler, 2020).

Data Collection Instruments

The process of data collection encompassed collecting data from peer-reviewed literature, qualitative studies, and semistructured interviews. As the researcher my role as the primary data collection tool was key to the qualitative process. According to Cypress

(2018), as the primary data collection tool the researcher is the most valuable tool in qualitative research.

As the researcher and primary data collection tool, I used the semistructured interview process to obtain information related to participant experiences and particular phenomenon. As a preferred means of data collection in qualitative research, the semistructured interview process assisted in primary data collection and evaluation of phenomenon (Cypress, 2018). I collected participant experience data using a semistructured instrument tool. I asked interview questions (see Appendix B) from the participants and recorded responses related to strategies to effectively deploy and monitor departments' productivity goals to improve their overall organizations' performance.

Upon completion of the interviews, I conducted member checking to ensure validity and reliability of the data collection process. Qualitative research uses the process of member checking to improve reliability and validity of researcher data through sharing data and cross-checking interpretation (Cypress, 2018; Wendler, 2020). Each research participant received a copy of interview interpretation and synthesis to validate information. Clarification and validation of responses aided in the analysis of information and recognition of themes.

Data Collection Technique

The qualitative case study explored strategies used to monitor and improve organizations' performance. The primary research question was: What strategies do healthcare organizations' leaders use to effectively identify, deploy, and monitor departments' productivity goals to improve their overall organizations' performance? The

data collection strategy was primarily semistructured in-person interviews. Semistructured interviews with open-ended questions provided insight into management processes and organizational operations.

Once approval was gained through the IRB process, I conducted Zoom supported face to face interviews scheduled for a 60-minute period. The participants were coded during the interview process to ensure adherence to privacy. Audio was recorded to maintain truth in data during the transcription process. The interviews contained semistructured open-ended questions. I also maintained a positive relationship of trust to promote participant engagement. Trust between participant and researcher was enhanced through the appropriate capture of interview responses.

To ensure appropriate capture and accurate transcription of interview responses I used a secure transcription application that could be imported to computer text easily. According to Yin (2017), the use of recording devices and the process of transcription is more dependable than manual note taking. The use of telephone interviews was restricted due to the potential for variability when attempting to develop a connection. Telephone interviews tend to provide less detailed responses due to the limited relationship development between participant and researcher (Mealer, & Jones, 2014).

Data Organization Technique

After collection and transcription of data, organization and analysis was crucial to the process of recognizing themes. Case study research requires organization to evaluate data phenomenon (Yin, 2017). Establishing a database to collect and house data facilitated an organized review process. I used the digital data transcription process to

manage data by dates, time, and coded participant. The use of an electronic data management process eased the management of digital recordings and transcriptions. I tracked coded participant audio files to transcribe data within an excel spreadsheet. The files were password protected and saved for 5 years. As an archival backup I used a password protected and encrypted cloud-based platform. According to Penuel et al. (2011), selection of a digital data management platform potentiates security and ease of tracking.

Data Analysis

Qualitative data analysis is a review of data that allows the researcher to evaluate themes and occurrences that may provide relevance to the outlined research question. According to Yüksel and Yıldırım (2015), data analysis is the progression towards resolution of the defined research question. I conducted data analysis through the collection and review of semistructured interviews. Data analysis is a systematic and complex process that requires detailed review and management of information to identify themes and meaning (Cypress, 2019).

Upon completion of the data collection process, I used a structured approach to data organization and electronic input. According to Maher et al. (2018), the complexity of data analysis is benefited by having a structured approach to analysis. I used the thematic data analysis process outlined by Yin (2017) to initiate analysis of the collected case study data. Yin outlined the analysis process as: (a) compile and organize, (b) manage data in fragments, (c) input the collected data in sequenced groups, (d) interpret meaning, and (e) establish findings. Use of the detailed process aided in the discovery of

themes and pattern related to strategies used to monitor and improve organizations' performance.

The establishment of a defined collection, organization, and data review protocols with proven electronic data analysis tools facilitated identification of themes through the process of coding and categorization. According to Parameswaran et al. (2020), qualitative research consists of collecting and reviewing rich descriptions to identify patterns and themes. After collection of data, I conducted a preliminary review of transcripts and used codes and categorization to identify themes. Open coding progresses the identification of prominent patterns and themes within collected interview data (Wan, 2018; Williams, & Moser, 2019).

Progression of the data analysis process also included entering collected data within the NVivo software. The NVivo software assisted in a detailed data review, analysis, and recognition of themes that may have been missed within the open coding process. Maher et al. (2018) proposed that the use of NVivo facilitates management of copious quantities of data while providing credibility and accuracy during the analysis process. Once I uploaded the data into the NVivo software, I used mind-mapping and coding results to further organize data into relationships that supported or disputed the research question.

Reliability and Validity

Reliability

Qualitative research should be inclusive of reliable and valid information that was obtained ethically. According to Cypress (2017) and McGrath et al. (2019), qualitative

research requires that the researcher implement protocol to ensure trust within the research process and validity of data. Hess et al. (2014) further emphasized qualitative research reliability through the actions of the researcher check for data accuracy. By aligning the research data collection process to the research question with the ability to replicate results, I could further support research reliability. Moon (2019); Rose and Johnson (2020) proposed that the ability to replicate research results supports reliability. Hess et al. (2014) further supported the ability to replicate results as well as cohesive research design and data collection to obtain valid research results.

A comprehensive research design and methodical data collection process ensured the collection of relevant data and accurate recognition of themes. According to Moon (2019), clear descriptions and protocols with use of member checking facilitates accuracy and reliability of collected data. I used member checking to validate interpretations for accurate results. In collaboration with member checking ensuring comprehensive descriptions of research design, protocols, interviews, and participant feedback is essential to promoting dependability and the ability to replicate. Lishner (2015) and Campbell et al. (2013) defined the demonstration of research dependability as the ability to present rich descriptions with the ease of replication. I implemented a research protocol (Appendix A) aligned to my research process to ensure standardization and collection rich interview data.

Dependability

Dependability in qualitative research is crucial to trustworthiness of research results and the ability to replicate study findings. According to Bakhshi and Rodriguez-

Navas (2020); Yin (2017), dependability of research is related to the ability within research protocol implementation to replicate and analyze like phenomenon. Implementation of a defined interview protocol and research design potentiates dependability (Yin, 2017). During the research process I used an interview protocol with detailed collection of interview responses. Data triangulation was used to enhance dependability of research results by evaluating several sources of information. According to Jentoft and Olsen (2019), triangulation is used to test dependability and validity through the convergence of various sources. To further enhance dependability and validity I employed member checking with participants and interview transcripts. Fusch and Ness (2015) noted that transcription review with research participants verified accuracy and validity of data.

Validity

Qualitative research validity is crucial to the accuracy of design, processes, and data. Validity of qualitative research encompasses the elements of creditability, transferability, and confirmability. Cypress (2017) noted that researcher's comprehension of creditability, transferability, and confirmability is essential to research confidence. According to Kim and Li (2013), creditability, transferability, and confirmability potentiate trustworthiness in research findings.

Creditability

Credibility of qualitative research our through the process of accuracy and quality. Moon (2019) proposed using member checking to enhance accuracy and data credibility. Jentoft and Olsen (2019) supported the use triangulation to confirm source research to

further enhance credibility. I established research credibility and consistency by gathering rich data from multiple sources and member checking during the interview process. Use of triangulation and member checking mitigated researcher biases.

Transferability

Transferability within qualitative research is established once the researcher can provide evidence that the research findings can be aligned to other situations, populations, and times. Building a descriptive research process supports transferability of findings (Korstjens & Moser, 2018;2017). I presented a comprehensive discussion of study purpose, participants, and data collection. According to Graneheim and Lundman (2004), a comprehensive discussion and rich description of research protocol and findings facilitate association of research to other situations.

Confirmability

Qualitative research confirmability allows the ability of verification by other researchers. Implementation of initial and subsequent member checking potentiates confirmability. During the interview process I provided rich descriptions of participant responses with member checking and descriptive data analysis. Fusch and Ness (2015) suggested integration of triangulation to further enhance confirmability. The expected integration of member checking, triangulation, and multiple source review potentiates data saturation and confirmability of the research study (Fusch, & Ness, 2015; Yin, 2017).

Data Saturation

Collecting data through rich interview descriptions and replication facilitates progression towards data saturation. According to Fusch and Ness (2015), the use of member checking during the interview process also enhances the data saturation process. I conducted member checking during the interview process and post transcription to ensure accuracy while obtaining detailed descriptions until data became repetitive. Respective information with no additional themes or patterns is essential to achieving data saturation (Hennink et al., 2019; Saunders et al., 2018).

Transition and Summary

Section 2 outlined a comprehensive description of the qualitative research process with insight into the research methods, design, ethics, as well as data collection, analysis, and interpretation processes. In this section I also evaluated the data collection instruments while reviewing reliability and validity. Section 3 will include study finding and recommendation for future research.

Section 3: Application to Professional Practice and Implications for Change

Sections 1 and 2 provided an analysis into why the outcomes and findings from this study are important to healthcare organization and departmental leaders as they balance productive employee workforces. The previous sections also provide detailed discussions related to research design, methodology, and implementation process. Section 3 focused on providing relevance to professional practice through the (a) introduction, (b) presentation of findings, (c) application to professional practice, (d) implications for social change, (e) recommendations for action, (f) recommendations for research, (g) reflections, and (h) summary and study conclusions.

Introduction

The purpose of this qualitative multiple case study was to explore the strategies that healthcare organizations' leaders use to effectively identify, deploy, and monitor departments' goals for improving their overall organizations' performance. The targeted population included 20 departmental leaders that participated in detailed interviews specific to the development, deployment, and monitoring of departmental productivity goal improvement.

Upon completion of the data analysis, the study findings identified five practical strategic themes for developing, deploying, and managing the organizations' departments' productivity performance goals and improving overall performance. To ensure I achieved data saturation during the research process recommendations by Fusch and Ness (2015) were followed by initiating member checking through participant interview review and verification to ensure that no additional themes emerged. The first strategy theme was

revealed as communication, which included organizational and interpersonal communication between stakeholders at multi-operational levels of the organization. Further analysis revealed the second strategy theme as information transparency which stipulated that healthcare leaders should clearly communicate financial and nonfinancial information to stakeholders. The third strategy theme was identified as employee engagement which refers to the process of positively motivating employees cognitively, emotionally, and behaviorally towards achieving organizational outcomes. Employees who were highly engaged exhibited elevated productivity levels, had psychological ownership, and were more committed to the organization and its goals. Data review, analysis, and data-driven decision making was identified as the fourth strategy theme. Research indicates that various data analytic tools can be utilized by health systems to manage, model, and conduct predictions with the available large sets of health data. The use of data analytics has benefits for patients, communities, and health systems, such as saving costs, predicting disease outbreaks, and putting prevention interventions where needed. The fifth strategy theme was performance management; the study findings indicated the primary aspect of target setting. However, health systems could benefit from performance management which includes identifying, measuring, and developing individuals and teams' performance aligned to organizational goals. Table 1 below indicates the distribution of strategy themes in the interview transcripts.

Table 1

Strategy Themes and their Frequency in the Data

Theme	Number of times code appeared in data	Participant interviews containing code
Communication	20	13
Data review, analysis and decision making	20	16
Employee Engagement	11	9
Information Transparency	10	8
Performance Management	24	14

Presentation of the Findings

The current section provides an overview of various themes that emerged from my study's data in an effort to answer the research question: What strategies do healthcare organizations' leaders use to effectively identify, deploy, and monitor departments' productivity goals to improve their overall organizations' performance? The conduction of semistructured interviews with 20 healthcare leaders was the primary source of data collection and analysis. The conceptual framework progressed from the theories of transformational leadership by Bass and Avolio (1994) and the policy development theory of Akao (1991). The research question and semistructured interview data analysis identified the five core themes as (a) communication and information sharing, (b) information transparency, (c) engaging employees, (d) data review, (e) analysis and data-driven decision making, and (f) performance management healthcare

leaders use to identify, deploy, and monitor departments' productivity goals and performance.

RQ1: What Strategies do Healthcare Organizations' Leaders Use to Effectively Identify, Deploy, and Monitor Departments' Productivity Goals to Improve Their Overall Organizations' Performance?

The research question explored strategies used by organizational leaders to deploy effectively and monitor departmental productivity goals and improve overall organizations' performance. Five themes were found to address the research question, and they are discussed in the section below. Quotes from the data illustrate each theme, and findings of previous studies on the concepts are provided.

Theme 1: Communication

This theme discusses communication as a strategy that health care organization leaders have utilized to identify, deploy, and monitor departments' productivity goals to improve the overall performance of their organization. Communication in this context refers to the formal and informal systems through which meaning is transferred between leaders and employees within the organization.

Six participants reported that they had used communication as a strategy to monitor the productivity of departments within their health care organizations. For instance, Participant 19 reported that multilevel communication had been effective in providing positive results related to productivity performance: "Multilevel communication within the department has been effective in providing positive results related to productivity performance, it engages individuals at all operational levels."

Information sharing was identified as an important strategy by 13 of the participants. They argued that it was important to share information with leaders and employees within the health system. Participant 13 argued that they used the strategy of information sharing with leaders and employees, saying, "The strategies are transparency of data, daily huddles with frontline leaders, and dissemination of information to Frontline staff."

Participant 15 argued that it was the role of individuals in positions of leadership to ensure effective communication on departmental and organizational goals. The participant suggested a top-down approach whereby communication flows from leaders to clinical staff within a health facility. In the following quote the leader's role in communication was identified: "…a leader has to ensure that the knowledge is understood by clinical staff as we empower them with the ability to implement actions that directly have impact to departmental and organizational goals."

Downs et al. (1993) identified three dimensions of communication that were relevant to this study. The first dimension is communication climate which refers to organizational and personal level communication. It includes aspects such as the extent to which communication influences workers to meet organizational goals and how that aids them to identify with the organization. It also incorporates employees' attitudes towards communicating within the organization. The second aspect is organizational integration, which is about the extent to which individuals receive information about departmental plans and job obligations. The third aspect is corporate information, which is concerned with general information about the organization. It includes providing stakeholders with

information about the change, financial standing, and overall organizational goals and policies.

Literature on communication and organization productivity indicates that communication skills are important for leaders and employees within organizations that desire to involve employees in performance evaluations. As work teams increase, the importance of information sharing becomes pronounced as the core for team functioning. One of the key aspects of communication in health care settings is communication among healthcare providers to coordinate patient care, and failure in this setting could lead to significant medical errors (Edwards et al., 2009), and a past report on patient flow associated poor communication to sentinel events (Edward et al., 2009).

In summary, the study findings focus mainly on organizational communication as opposed to personal communication. However, there was no mention of communication between health providers and their patients, which is also an important aspect of communication within health care settings (Chichirez & Purcărea, 2018). Hospitals and other medical care facilities have large amounts of data and require cooperation and data sharing.

Theme 2: Information Transparency

Information transparency discusses was identified as an effective strategy to influence departmental productivity and is helpful in monitoring departmental productivity against deployed goals. The current study adopts Bushman et al. (2004) definition of information transparency which refers to the company's financial and non-financial information accessibility for external users. Eight participants in the current

study reported that information transparency was an effective strategy. For instance, Participant 6 indicated that information transparency was an important strategy to monitor departmental productivity against deployed goals, stating, "To monitor performance of departmental productivity I used the strategy of data transparency and communicating information to key stakeholders."

Participant 1 observed that information transparency was crucial to encourage leaders display of accountability. Also, it enabled leaders to manage productivity in an appropriate manner. Participant 1 identified the benefits of information transparency on the health facility leadership: "I found that data sharing and information transparency was key to engaging frontline leaders in appropriately manage productivity actions. allowing leaders to take ownership builds accountability." Participant 20 argued that information transparency could be achieved through posting data for employees to ensure that everyone was aware of the performance outputs. Participant 20 stated: "Data posting provides an element of transparency so that everyone is aware of performance targets and performance outcomes equally."

Kundeliene and Leitoniene (2015) identified that transparency of financial reports facilitated disclosure of the economic aspects of a business in a sense that users would understand. On the other hand, nonfinancial information transparency was linked with an organization's social responsibility activities. Literature indicates that information accessibility and transparency promote reliability, confidence in a company and lowers isolation between the organization and stakeholders (Kundeliene & Leitoniene, 2015). Information transparency could also lead to negative outcomes; for instance, users may

misunderstand the specified information resulting in baseless expectations from the company. However, with information transparency analysis and evaluation, companies can avoid the negative outcomes.

McWilliams (2013) argued that information alone is not likely to influence consumer behavior in health care. Advocates of market-based transparency strategies favor combining the information with financial or non-financial nudges. Nudges may include tier-based, price-based, or value-based cost-sharing, insurance exchanges or employers actively guiding consumers to the best plans, or default pathways supporting high-value options. Packaging information into more effective signals is also a type of nudge. Nudging is a form of agency instead of an extension of transparency. Rather, it is a form of *agency*.

Kaplan (2018) argued that health care providers cannot achieve transparency with their clients without first having internal openness at all levels of the health organization. In addition, scholars have argued that there is a link between transparency and productivity. When comparative productivity information about employees is disseminated within a healthcare organization or made available to the broader community, healthcare workers tend to be more diligent due to the scrutiny of their peers.

Theme 3: Engaging Employees

This theme refers to employee engagement as an effective strategy to influence departments' productivity performance. Cesário and Chambel (2017) defined employee engagement as the process of positively motivating employees cognitively, emotionally, and behaviourally toward achieving organizational outcomes. Research shows that

leaders who are actively working toward fully engaging their employee's gain elevated levels of productivity, organizational citizenship behavior, and general job performance (Christian et al., 2011; Rich et al., 2010; Shuck, et al., 2011).

Nine participants reported that engaging employees was an effective strategy influencing departments' productivity performance in their organizations. For example, Participant 6 noted that: "through the process of shifting cultural ownership and review I engage clinical leaders to own the process of productivity performance."

Employee engagement is one of the greatest challenges in the workplace (Osborne & Hammoud, 2017). Bersin (2014) indicated that globally, only 13% of employees are fully engaged at work. In addition, twice as many are so disengaged that this undesirable behavior is spread to their fellow employees (Bersin, 2014). Employee engagement is an important aspect in preserving the organization's vitality, survival, and profitability (Albrecht et al., 2015; Farndale & Murrer, 2015). Organizations with highly engaged employees have greater profits, enhanced customer satisfaction, profits, and employee productivity (Osborne & Hammoud, 2017; Ahmetoglu et al., 2015).

In summary, employee engagement results in a sense of involvement, and as a result, employees acquire feelings of influence. Employee influence facilitates organizational collaboration that progress towards empowerment. Feelings of power generate psychological ownership, which leads to commitment to the organization and its goals.

Theme 4: Data Review, Analysis and Data-Driven Decision Making

This theme refers to a strategy whereby data is reviewed, analyzed and the outputs are utilized to inform decision making within the health facility. About eleven of the participants indicated that they found data review and data use in decision making as an effective tool to influence departmental productivity and overall organization productivity. For instance, Participant 10 indicated that they used data for decision making at their health facility: "The strategies of data review and comprehension of the data source was used to determine daily, weekly, and monthly improvement actions. Actions were based on clinical volume, patient acuity, and expected operational functions within the department." (Participant 10)

Participant 12 indicated that they analysed data to identify actions to improve departmental productivity: "The strategy of data review and analysis as well as actionable follow-up is key to managing departmental financial performance an operational resource to improve departmental productivity." (Participant 12) In addition, four participants pointed to the importance of carrying out data reviews at departmental level. Participant 13 argued that the collaborative data review facilitated the monitoring of a department's performance. In the quote below the Participant identifies some of the advantages of data review: "To assist with monitoring departmental performance against deployed goals the team implemented collaborative reviews of departmental productivity missed targets." (Participant 13)

On average, as of 2015 an average-sized hospital produced 665 terabytes of data (Wills, 2014). Scholars have argued that despite the large amounts of data, there is not

adequate applicable information to accompany the data (Wills, 2014). Data analytics offers a solution to managing large amounts of data. IBM defines data analytic as "the systematic use of data and related business insights developed through applied analytical disciplines to drive fact-based decision making for planning, management, measurement, and learning." Data analytics offers the following solutions to health care organizations, enhancing the quality of care, containing costs, and managing operational duties (Prewitt, 2012).

Dash et al. (2019) stipulates that there is a new field of science referred to as data science which aids the health care system to manage the large volumes of data. They define data science as a field that deals with various aspects of data, including data management and analysis, to extract deeper insights for improving the functionality or services of a system. Additionally, some tools allow users to visualize data post-analysis. Therefore, data science enables users to understand how a complex system such as health care functions.

The digitization of health records is a widely accepted system across many health facilities. The digitized health records are often referred to as electronic health records (EHR), and they allow health systems to collect data on clients' medical history, current health situation, including medical imaging, and socio-behavioural, and environmental data. There are other digitized health systems beyond EHR, such as electronic medical record (EMR), which stores the standard medical and clinical data gathered from the patients. Also, there are personal health record (PHR), medical practice management software (MPM), and many other healthcare data components. The digitized health

records have the capacity to jointly enhance the quality, service efficiency, and costs of healthcare, as well as reduce medical errors (Dash et al. 2019).

Although electronic health records are not without challenges, they facilitate advanced analytics and aid clinical decision-making by making enormous amounts of data available. Experts indicate two ways in which data analytics contribute to healthcare decision-making. The first avenue is predictive modeling, which analyses current and historical data to predict future outcomes. These have benefits at a patient-level where treatment outcomes, risk of self-harm, and potential risk of chronic illness can be anticipated. Predictive levels at the macro or population level allow the health system to detect outbreaks and prevent specific future health outcomes. Also, at the health facility level, predictive modeling can be used in administrative applications to lower costs and improve efficiency.

Secondly, data analytics can result in a reduction in health care costs through predictive and prescriptive analytics. Health leaders have access to models that can reduce costs and patient risk. These models offer value to health care clients and provide solutions to health care bottlenecks such as reducing appointment no-shows, managing supply chain costs, preventing equipment breakdown, and decreasing fraud.

The participants in the current study did not expound on the process that they followed in carrying out collaborative data reviews. However, as indicated in the previous section engaging employees in organizational practices leads to ownership of strategies and commitment to organizational goals. Evidence presented in the strategy on data review, analysis and decision-making shows that health stakeholders have access to

various data tools that can facilitate decision-making and offer value to the health system and clients.

Theme 5: Performance Management

Performance management discusses performance targets as a strategy to develop, deploy, and manage the health organizations' departments' productivity performance goals. Nine participants discussed the process and indicated that they had established performance targets and had periodic progress reports on performance. For instance, Participant 4 stated that they were using target setting to develop, deploy, and manage their organizations' departments' productivity performance goals and ultimately improve the overall performance: "I decided to use the process of target setting as well as staffing to volume." (Participant 4). Similarly, Participant 14 indicated that monthly reports on performance were an effective strategy to manage departmental and overall organization productivity: "The strategies used are information sharing and performance reviews at regular intervals to make improvements." (Participant 4) Also, Participant 15 observed that performance targeting helped employees to understand the impact of data on operations and implement improvements: “Performance targeting has been a particularly effective strategy because of the inclusiveness related to data awareness, comprehension of how the data impacts operation, and implementation of improvement activities.” (Participant 15)

Performance indicators refer to measurable elements of practice performance for which there is evidence or consensus that they can be used to assess the quality, and hence change of quality, of care provided’) and performance frameworks (‘conceptual

frameworks that set out the rationale and design principles for an indicator set') are typically designed to routinely monitor aspects of healthcare performance such as effectiveness, efficiency, safety and quality(Crampton et al. 2004; Arah et al., 2006).

Target setting is one of the components of performance management. According to Aguinis (2013), performance management is a *continuous process of identifying, measuring, and developing the performance of individuals and teams and aligning performance with the strategic goals of the organization.* It is referred to as a continuous process because it is ongoing and constitutes of establishing goals and objectives, monitoring performance, and providing and receiving coaching and feedback. Aligning performance with strategic goals requires that managers ensure alignment of employees' activities and outputs with the organization's goals and, ultimately, aide the organization achieve a competitive (Aguinis, 2013).

An effective and logical healthcare performance measurement system can enhance the quality of medical service, lower costs, augment service processes, and accomplish optimal resource distribution (Soysa et al., 2018; Van der Wees et al., 2014). As evidence of the achievement of organizational goals, a growing number of scholars concentrate on the advancement of hospital management utilizing performance indicators (Christiansen & Vrangbæk, 2018; Ali et al., 2018).

Measuring productivity within healthcare settings is problematic (Boussemart et al., 2020; Sheiner & Malinovskaya, 2016). Healthcare productivity must be judged from the standpoint of reduced cost and increased care, but patient satisfaction and long-term patient outcomes must also be considered and measured. Using a literature review format,

Sheiner and Malinovskaya (2016) illustrated the diverse methodologies for assessing healthcare productivity, including disease-based approaches or patient care quality indexes. A common approach to evaluating healthcare productivity includes a cost analysis of indicator procedures and treatments.

Sheiner and Malinovskaya (2016) conclude by stating that there is value to utilizing a combined assessment approach and found that the affordable healthcare act was likely to result in long-run healthcare productivity improvement using several different health productivity assessment frameworks. In summary, performance management (including target setting) is an essential strategy that directly links employee performance and organizational goals and clarifies the employees' contribution to the organization.

Connecting Findings to the Conceptual Framework

The current study utilizes a conceptual framework that was primarily based on the transformational leadership theory according to Bass and Avolio (1994). The theory posits that improved organizational productivity can be achieved through the leaders' ability to inspire confidence among staff and share the organizations' vision through charisma. The transformational leadership theory underscores the importance of building a positive relationship with employees in order for leaders to exert a positive influence that affects the entire organization (Breevaart & Bakker, 2018). The direct application of this theory to the current study is that transformational leadership provides a context to the strategies that foster sustainable departmental productivity such as communication, information transparency and employee engagement. For instance, individualized

consideration refers to the ability of leaders to communicate concern with every employee in an organization whereas transformational leadership ensures that the goals of a company drive progress and action at every level within that company as defined by Akao (1991). Breevaart and Bakker (2018) identified engagement as a positive employee outcome of transformational leadership. Therefore, the transformational leadership theory applies to the current study because it provides a framework for application of leadership to influence optimal organizational outcomes (Bass & Avolio, 1994).

Applications to Professional Practice

The United States currently spends 18% of its gross domestic product (GDP) on healthcare, yet the system does not optimally deliver high-quality, affordable, and convenient patient care. Poor productivity in the healthcare delivery industry contributes to high spending. Focusing on productivity would enable the health system to deliver more with fewer costs. Also, increased productivity would allow the health system to continue advancing medicine to meet the increasing need for health services while improving affordability. This study identifies strategies that healthcare organization leaders can utilize to effectively identify, deploy, and monitor departments' goals to improve their overall performance.

For instance, leaders could reinforce their communication with employees and ensure they are aware of the organizational goals, departmental goals plans and job obligations. Also, ensuring that other stakeholders outside the health system are regularly updated on any changes, the health facility's financial standing, and their overall goals and policies (Downs et al., 1993). It is also important for health systems to focus on

communication between health care providers concerning their patient's care towards positive health outcomes (Edward, 2009). Communication is also crucial to share information and foster teamwork within the various sub-teams in the health facilities.

The current study indicated the importance of financial and non-financial information transparency. A health facility that practices this strategy gains confidence and is perceived as reliable by its stakeholders (Kundeliene & Leitoniene, 2015). In addition, literature proposes that health care leaders should combine information transparency with financial and non-financial nudges as a form of stakeholders' agency.

The study indicates that high levels of employee level engagement should be viewed as a strategy for increasing organizational productivity. Literature indicates that organizations that engage their employees benefit from preserving the organizations vitality, survival, and profitability (Albrecht et al., 2015; Farndale & Murrer, 2015). Pathways to these positive outcomes include employees' feelings of influence, psychological ownership, and commitment to the organization and its goals.

Leaders could utilize data science to manage the large amounts of health data, enhancing its quality, and managing operational duties (Prewitt 2012). They could utilize data analytics to analyze, utilize modelling to visualize and predict future outcomes at patient level or population level. The health facilities could also benefit from data modelling to lower administrative costs and improve efficiency (Prewitt 2012).

Leaders should proceed beyond target setting and practice performance management. Performance management is a continuous process of identifying, measuring, and developing individuals and teams' performance in line with an

organization’s strategic goals. Literature shows that there are health system benefits of an effective healthcare performance measurement system including improved quality of medical service, lower costs, augment service processes, and gain optimal resource distribution (Soysa et al., 2018; Van der Wees et al., 2014). Leaders must strike a balance between reduced costs and patient satisfaction. Performance management links employee performance and organizational goals are clarifying their contribution to the organization.

Implications for Social Change

In this section, the implications of the study findings are expressed in terms of tangible improvements to key stakeholders in the health system. The key stake holders are inclusive of healthcare leaders, employees (clinical and non-clinical), patients, and wider communities within the vicinity of the health facility.

The study findings indicate the benefits of effective communication to the health system, ensuring that all stakeholders are aware and working towards common goals. There is also a bottom-up approach whereby health leaders provide an opportunity to employees to give feedback. Departmental leaders practicing positive communication skills need to communicate departmental plans and job obligations to their work teams. Also, health facility leaders are responsible for communicating with internal and external stakeholders about financial standing, any changes made, and goals and policies that guide the health system. In addition, another aspect of health providers' communication is to promptly coordinate patient care.

Information transparency has benefits for the health system in general. The health facility leadership gains stakeholder confidence and better reliability when they are

transparent about their financial and non-financial information. The information needs to be clear to avoid misunderstandings and baseless expectations from stakeholders (Kendeliene & Leitoniene, 2015).

High levels of employee engagement have benefits for both the organization and employees. Employees who are engaged at their place of work have more psychological ownership and better motivation in their job. On the other hand, a health facility that engages its employees has greater profits because employees are more productive, and their customers are satisfied. Therefore, healthcare leaders' ways of improving employee engagement such as ensuring job fit, giving their employee's proper training, ensure employees are tasked with meaningful work, use formal and informal check-in strategies, and frequently discuss engagement with employees (Gleeson, 2017).

The health system, employees, and patients and wider community benefit from use of data analytics to inform decision making. For instance, when leadership and employees invest in digitized health records the quality of health data improves, health services are more efficient and the healthcare costs are reduced (Dash et al., 2019). In addition, data modelling allows the health system to predict disease outbreaks and put prevention or response measures at the population level in place. Health system costs, specifically administrative costs, can be reduced through predictive modelling. Health leaders have the responsibility to partner with experts in health information systems and statisticians to enjoy the full benefits of data science.

Managers have the responsibility of driving continuous performance management in a health care system. The strategy has benefits for employees because it improves

motivation and self-esteem, and performance, clarifies job tasks and duties, provides self-insight and development opportunities, and clarifies supervisors' expectations (Aguinis, 2013). For managers, it allows them to understand employees' activities and goals, allow for fair and suitable administrative actions, allow for clarity in communication of organizational goals. It also provides insights to managers on good and poor performers, and aids in driving organizational change, and enhance employee engagement (Aguinis, 2013).

In this section the implications of the study findings are expressed in terms of tangible improvements to key stakeholders in the health system. Key stakeholders inclusive of leaders, employees (clinical and non-clinical), patients, and wider communities within the vicinity of the health facility are expected gain positive outcomes from the knowledge gained through the identification of themes within research findings.

The study findings indicate the benefits of effective communication to the health system as a whole ensuring that all stakeholders are aware and working towards common goals. There is also a bottom-up approach whereby health leaders provide an opportunity to employees to give feedback. Departmental leaders practicing positive communication skills need to communicate departmental plans and job obligations to their work teams. Also, health facility leaders have an obligation to communicate with internal and external stakeholders about financial standing, any changes made, and goals and policies that guide the health system. In addition, another aspect of health providers communication is to promptly coordinate patient care.

Information transparency has benefits for the health system in general. The health facility leadership gains stakeholder confidence and better reliability when they are transparent about their financial and non-financial information. The information needs to be clear to avoid misunderstandings and baseless expectations from stakeholders (Hofmann & Strobel, 2020).

High levels of employee engagement have benefits for both the organization and employees. Employees who are engaged at their place of work have more psychological ownership and better motivation in their job. On the other hand, a health facility that engages its employees has greater profits because employees are more productive, and their customers are satisfied. Therefore, healthcare leaders' ways of improving employee engagement such as ensuring job fit, giving their employee's proper training, ensure employees are tasked with meaningful work, use formal and informal check-in strategies, and frequently discuss engagement with employees (Gleeson, 2017).

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Recommendations for Action

This study offers recommendations that can inform healthcare organization leaders who are interested in strategies that have the potential to improve the overall performance of their organizations. The recommendations can be implemented at various levels of healthcare including departmental and entire health system. This section lists recommendations targeting various stakeholders in healthcare, including health leaders, employees or clinical staff, clients, and target community.

Senior Leaders Could Provide Coaching to Junior Leaders

Health leaders are a catalyst in employee engagement and effective communication within an organization. For instance, senior leadership need to communicate the vision of the organization to all stakeholders. Then, they could select managers that have clarity on organizational values and mission and the right skills to engage with their team members. One of the ways of learning could be through coaching

programs that allow junior leaders to learn crucial skills (such as self-management and self-awareness) from more experienced leaders (Aguinis, 2013).

Leaders and Their Teams to Take up Professional Training in Communication

Good communication is a core leadership function and a hallmark of a good leader. Communication skills are relevant to individuals at all levels within the health facility, including managers and employees. Human interaction plays a pertinent role in every workplace; whether it is with supervisors, colleagues, or patients, it can increase efficiency and productivity.

Recommendations to Facilitate Performance Management Within -Teams

Team members within departments should be encouraged to try new behaviors to facilitate adaptive learning. In addition, leaders and employees could jointly review completed projects to pick out lessons on what worked and what did not work. Also, to facilitate generative learning, teams can learn from best practices implemented by other groups in the same organization or even in different organizations in health care. Subsequently, units can be allowed to practice new skills until they become habitual (Aguinis, 2013).

Health Systems to Examine the Various Data Analytics Options and Choose Based the Best Option for Their Needs

Healthcare organizations need to consider available data analytic solutions and complete an assessment to establish which one suits the organizational needs. Each solution provides tools to manage the large amounts of healthcare data and provide actionable information. Establishment of an actionable solution requires determining the

need of the current technological infrastructure and the investment the organization is willing to make, while considering operational needs (Prewitt, 2012).

Use of Information Transparency Analysis to Avoid Negative Results of Transparency

There may be instances where information users' mis-understand the offered information resulting in baseless expectations from the health facility. Health systems can utilize information transparency analysis and evaluation to mitigate against the negative effects of information transparency (Hofmann & Strobel, 2020).

Healthcare Employee Quarterly Surveys to Understand Expectations and Trends

Quarterly employee surveys can help a health system monitor and track employee engagement strategies. Also, finding out the techniques used by an organization's competitors can inform effective employee engagement strategies. Leaders could consider the relationship between employee engagement and productivity as a rationale to invest in employee engagement.

The researcher can disseminate the study findings in national and international conferences attended by researchers, policymakers, and stakeholders from health facilities to inform healthcare policies and practices. Given the current COVID 19 restrictions, the researcher can organize virtual webinars on zoom to reach the various study participants, employees, and leaders within participating institutions. The researcher may also utilize existing meeting forums at the health facility level, such as staff meetings.

Recommendations for Further Research

Future researchers should consider use of a variety of informants such as interviews with health care providers (employee's) alongside interviews with management to increase the credibility of findings by comparing perspectives of different informants. Also, future studies should include informants from a variety of settings such as big health facilities, average size, small size and from different parts of the United States so that they can explore the effect of size and state policies on implementation of various strategies to improve productivity.

One of the study limitations associated with selecting a qualitative design is the inability to make causal conclusions about the effect of leadership on organizational productivity in health care organizations (Yin, 2017). However, using mixed methods in future studies would ensure that the study acquires benefits from the strengths of both research methods. Also, using multiple data sources could facilitate a more nuanced description and understanding of strategies that healthcare leaders use to productivity at the departmental and organizational levels.

Reflections

I had extensive knowledge of strategies used by organizations to enhance productivity; as a result, there was a risk that I placed undue emphasis on data that confirmed my bias and put less emphasis on the data that conflicted with it. To minimize the possibility of distorting the findings based on my biases, I engaged in a constant process of reflection and journaled my biases during the processes of data collection, analysis, and reporting. I questioned my automatic interpretations of informant responses

to ensure my preconceived ideas were not shrouding intended meanings. To ensure the trustworthiness of data, I used member checking to mitigate the impact of possible bias (Birt et al., 2016). I shared the interview transcripts with each participant to ensure their ideas and perceptions were accurately captured.

Conclusion

This study sought to explore the strategies that healthcare organizations' leaders used to effectively identify, deploy, and monitor departments' goals for improving their overall organizations' performance. Five strategies were identified that had been successfully used to improve organizational and departmental productivity within health care settings. The strategies include effective organizational and interpersonal communication, employee engagement, use of performance management, the practice of information transparency, review, analysis, and data-driven decision making.

The literature demonstrates that these strategies have benefits for multi-levels of health stakeholders. They improve productivity at the organizational and departmental levels. However, some impact inter-personal relationships and the broader community served by the health facility, such as information transparency and data analytics to manage data and predict population-level trends.

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Appendix A: Interview Protocol

Interview Title: Evaluation of Strategies for Achieving Sustainable Departmental Productivity

1. Initiation of the interview process will begin with greetings and introductions.
2. Participants will review the inform consent document and confirm agreement to participate in the study via e-mail.
3. An electronic copy of the consent form and request will be provided to confirm participant willingness to participate in the study. After greetings and introduction participants will review the informed consent document with validation of participation in the study.
4. A copy of the signed informed consent will be provided to participants for personal records.
5. A participant code will be assigned to each study individual, the date time and location will also be noted.
6. The recording of the interview will commence at the beginning of the session.
7. Time will be allocated to each participant for appropriate thought and answering with opportunity for additional follow-up questions.
8. After completion of the participants' interview, I will review the member checking process that will follow review of the transcription and interpretation of data. Participants will have an opportunity to member check to ensure interpretation was accurate and aligned with the information shared during the interview process.

9. The interview session will end with thanking the participant for engaging within the study.

Appendix B: Interview Questions

1. What strategies have you used to develop, deploy, and manage your organizations' departments' productivity performance goals to improve your organization's overall performance?
2. What specific strategies have you discovered to be particularly effective in influencing departments' productivity performance in your organization?
3. Based upon your experience, how did these strategies influence your organizations' departments' productivity performance?
4. What were the key barriers to implementing your strategies for improving your organizations' departments' productivity performance?
5. How did you address the key barriers to developing, deploying, and implementing the goals for improving your departments' productivity performance?
6. What strategies have you used to monitor the performance of your organizations' departments' productivity performance against their deployed goals?
7. What key barriers have you encountered in monitoring the productivity performance of your organizations' departments against their deployed goals?
8. How did you address the key barriers to monitoring the productivity of your organizations' departments against their deployed goals?
9. What other relevant issues or insights that we have not yet discussed would you like to share with regard to the strategies you used to identify, deploy,

monitor productivity goals for departments to improve the overall performance of your organization?

Appendix C: Social Media Post

Research study seeks participants that are healthcare leaders to participate in a research study regarding strategies healthcare leaders use to effectively identify, deploy, and monitor departments' productivity goals.

The study is called *"Healthcare Management Strategies for Achieving Sustainable Departmental Productivity Improvements."* The potential contribution of this study to positive social change is the encouragement of better strategic leadership practices that enable the public to have access to more efficient and productive health care systems for improved quality of patients' care.

Participation in a Zoom or interview process is part of the doctoral study for a D.B.A student at Walden University.

About the study:

- One 30-60-minute remote interview
- To protect your privacy, no names will be collected

Volunteers must meet these requirements:

- Current leadership position in an acute healthcare setting
- Management oversight of two or more employees
- Experience in managing departments' productivity goals
- Proven performance in productivity management

Contact Information:

To participate in the study or for any questions or concerns the researcher may be contacted by email.

Appendix D: Data Collection Steps for Interview Study

A pilot will not be performed for this study.

i. **Recruitment**

Participants from the study will be recruited through healthcare professional websites and professional networking platforms. The notification and e-flyer will invite volunteers to contact the researcher by e-mail or messaging if they meet the established criteria and would like to participate in the study.

ii. **Consent**

The consent form will be reviewed by Zoom and e-mailed to study participants for review. The participants will reply to the consent with an "I consent" statement if they wish to participate in the study.

iii. **Data Collection**

The researcher will interview participants via Zoom or phone call depending on participant preference. Zoom and telephone interviews will occur in secure locations (closed office settings) that restrict overhearing by others. Secure locations will be validated prior to the start of the interview.

iv. **Member checking**

The researcher will communicate with participants by phone and e-mail to initiate member checking after the initial process of data transcription and initial coding. The researcher will share takeaways from the initial process and set expectations for participant involvement in reviewing and confirming the accuracy of interpretations.

Appendix E: CITI Human Subjects Protection Training Certificate

CITI PROGRAM

Completion Date 13-May-2021
Expiration Date N/A
Record ID 42499633

This is to certify that:

Timothy Hargrove

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

Student's
(Curriculum Group)
Doctoral Student Researchers
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Walden University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w0d896641-abc1-4cde-aabd-8427d0b26c0d-42499633