12-5-2023

Improving Emergency Department Patient Satisfaction and Grow a Hospital's Revenue

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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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2023

Abstract

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Doctoral Study Submitted in Fulfillment

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Doctor of Business Administration and Leadership

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Abstract

Some hospital leaders lack strategies to improve patient satisfaction scores, leading to strains on the U.S. hospital healthcare systems and resources. Hospital leaders who do not develop and successfully implement strategies to improve patient satisfaction scores experience challenges in accelerating healthcare costs, growing financial pressures, drastically reducing hospital revenue, and escalating patient dissatisfaction. Grounded in the composite conceptual framework of general systems theory and the define, measure, analyze, improve, and control performance improvement methodology, the purpose of this qualitative single case study was to explore strategies healthcare leaders use to improve emergency department patient satisfaction and grow revenue. The participants were five healthcare leaders from one hospital in the northeastern region of the United States. Data were collected from semistructured interviews and document reviews and analyzed using Yin's five-step approach. Three themes emerged: enhanced information exchange and engagement, optimizing workflow processes and volumes, and structural enhancements and signage. A key recommendation is for healthcare leaders to work closely with C-suite executives and gain stakeholder buy-in to leverage resources. Implications for positive social change include the potential to improve the quality of healthcare delivery, safety, and outcomes, leading to improved patient satisfaction scores and a more knowledgeable, more satisfied, and healthier community.

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Dedication

I thank God for the grace that has illuminated my path, allowing me to navigate the challenges of scholarly pursuit. I humbly dedicate this dissertation to my sister and mother's boundless love and steadfast support, a testament to the divine blessings that have guided me throughout this academic odyssey. I express my deepest gratitude to my sister and mother, whose enduring sacrifices and unwavering faith have inspired me. With heartfelt appreciation, I acknowledge my sister, mentors, and professors, who have been instrumental in shaping my intellectual journey. May this work stand as a testament to the collective efforts of those who, under the watchful gaze of the Divine, have fueled my academic and personal growth.

Acknowledgements

I am expressing my sincere appreciation to Dr. Meridith Wentz, whose exemplary guidance and unwavering commitment as the Committee Chairperson have been instrumental in shaping the trajectory of this dissertation. Dr. Peter Anthony's invaluable contributions as a Committee Member have greatly enriched the depth and breadth of the research, and I am grateful for his insightful feedback and scholarly guidance. I want to extend a special thanks to Dr. Patsy Kasen, who served as the University Reviewer, for her meticulous examination and constructive feedback that enhanced the overall quality of this dissertation. These esteemed individuals' collective expertise, encouragement, and support have been pivotal in completing this academic endeavor. Their dedication to academic excellence and scholarly guidance have left an indelible mark on my intellectual growth, for which I am deeply thankful.

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Section 1: Foundation of the Study

Improving emergency department (ED) patient satisfaction and growing a hospital's revenue occur with leadership monitoring and a consistent change culture of improvement. A complete understanding of the patient process and protocol is necessary to select, modify, re-train, implement, have feedback, review for continual quality improvement, and grow hospital revenue. There are both intrinsic and extrinsic factors that influence patient satisfaction improving in the hospital ED, and growing revenue. The intrinsic one could modify or have some control over, and the extrinsic ones were external factors influencing patients (Reznek et al., 2021). Some patients experience poor patient satisfaction in the ED, stemming from challenges in timeliness, staff rudeness, unresolved pain, inadequate communication, and a lack of compassion (Stevens et al., 2019). These issues can be addressed easily to improve patient satisfaction scores through hourly rounding by management and leadership, contributing to revenue growth (Stevens et al., 2019). Individual and collective mindfulness and triage accuracy are challenged in one ED transitioning from a high workload to an extreme workload environment (Saban et al., 2019). Individual and team traits among nurses, physicians, and staff, such as mindfulness and triage accuracy, lead to improving patient satisfaction and healthcare quality improvement (Saban et al., 2019). The purpose of this single qualitative case research study was to identify, discuss, and recommend intrinsic or controllable factors leadership and management of hospitals could influence to improve ED patient satisfaction and grow hospital revenue.

Background of the Problem

Loss of revenue, increasing hospital costs, and decreasing patient satisfaction scores are significant concerns to hospitals and EDs'. The total national average hospital revenue loss for 215 of the U.S.'s largest hospitals was $4.18 billion, with 72% of total billing in accounting losses, leading to 28% to cover operating costs and expenses (Welsh, 2019). Hospital expenses averaged $1.27 billion, with an average net loss per hospital of $100 million per year (Welsh, 2019). The average increase in expenses from 2015 to 2018 was about 14% leading to pressures on patient revenue's significance to cover growing costs (Welsh, 2019).

Ten percent of patients shifted from private insurance to Medicaid in 2020 due to the current economic crisis from the COVID-19 pandemic leading to a 3.2% revenue loss for hospitals, compared to 0.8% in the year 2000 (Teasdale et al., 2020). Despite the increased flow of patients during the pandemic, hospitals lost revenue due to increasing reliance on tests and procedures, generating high revenue before the pandemic (Hamilton, 2020). Survey results from the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) indicated deteriorating patient satisfaction scores due to long unexplained patient wait times, unfair patient flow, overcrowding, and lack of communication between patients and staff (Brosinski & Riddell, 2020). The lack of efficiency in timely emergency care and decreased patient satisfaction in the ED led to growing healthcare costs and decreasing hospital financial profits (Ortíz-Barrios & Alfaro-Saíz, 2020). Patients expressed low satisfaction due to long ED wait times or

having to leave without being seen due to overcrowding and high patient volumes with low bed capacities (Spencer et al., 2019).

Problem Statement

Hospital ED problems led to accelerating healthcare costs, growing financial pressures drastically, shrinking hospital revenue, and escalating patient dissatisfaction (Ortíz-Barrios & Alfaro-Saíz, 2020; Robinson et al., 2020). Implementing process improvements in one hospital's ED saved $933,000 in revenue and increased patient satisfaction (Spencer et al., 2019). The general business problem was most hospitals in the United States were struggling with revenue losses and plummeting ED patient satisfaction scores. The specific business problem was some healthcare leaders in hospitals lacked strategies to improve ED patient satisfaction and grow revenue.

Purpose Statement

The purpose of this qualitative single-case design was to explore healthcare leader strategies in a hospital to improve ED patient satisfaction and grow revenue. The target population included five healthcare leaders at one hospital who were successful in improving ED patient satisfaction to increase revenue. The target population was from one hospital in the United States. The results of this study contribute to positive social change and benefit community members by providing and improving access to higher quality healthcare, leading to healthier communities' citizens.

Nature of the Study

I used the qualitative research method and a single descriptive case study design to provide rich, in-depth data for addressing the study's purpose. Researchers use the qualitative approach to collect detailed participant information to answer a research question (Yin, 2018). Basias and Pollalis (2018) mentioned that quantitative research is an empirical and systematic investigation of a theory or phenomenon through mathematical and statistical analysis of numerical data. A quantitative method is used by researchers to characterize variables' characteristics or to measure the correlational strength and direction between two or more variables. Using the quantitative method would not encourage interviewees to express their in-depth knowledge and experiences. Mixed-methods researchers use qualitative and quantitative research methods (Dopp et al., 2019). I did not use a mixed-methods research method as I was interested in the qualitative research findings and did not need to use the quantitative research methodology to address my study's purpose. I chose a single descriptive case study design after considering ethnographical and phenomenological designs. Ethnography is used to study a culture or a group in a particular environment (Vindrola-Padros & Vindrola-Padros, 2018). I did not use an ethnographical design for my qualitative study, as my goal was not to study the culture or group in a particular environment. Researchers use phenomenological design to determine the personal meanings or lived experiences of the participants (Konecki, 2019). I did not choose the phenomenological design for the

qualitative study, as the purpose of my research was not to determine the personal meanings of the lived experiences of the participants.

I used a qualitative single descriptive case study research design and interviews to allow leaders to express their in-depth knowledge and experiences. I did not choose the multiple case study designs to offer information over time and space, which would not be as detailed as a single descriptive case study design for the subject hospital. I used a descriptive case study to describe in-depth a unique problem of leadership developing and implementing strategies in the hospital setting for improving ED patient satisfaction and growing revenue.

Research Question

What strategies did healthcare leaders in the hospital industry use to improve ED patient satisfaction and grow revenue?

Interview Questions

1) What strategies has your organization developed and implemented to assess and improve ED patient satisfaction?
2) What strategies has your leadership team developed and implemented to improve ED patient satisfaction and grow revenue?
3) What processes beyond the leadership team were vital enablers to facilitate the successful implementation of strategies to improve ED patient satisfaction?
4) What technology tools and techniques were you using to improve ED patient satisfaction and grow revenue?

5) How, if at all, has your organization ensured the organizational culture was supportive of the successful and sustainable implementation of strategies in improving ED patient satisfaction and grow revenue?
6) What other information would you like to share about strategies successful healthcare leaders in this organization use to improve ED patient satisfaction?

Conceptual Framework

I used the general systems theory (GST) and define, measure, analyze, improve, and control (DMAIC) performance improvement methodology of lean six sigma (LSS) as the composite conceptual framework for the research study. According to Grimes (2017), in 1968, Karl Ludwig von Bertalanffy developed the GST. The GST is a model composed of entities whose conduct and properties depend on both the internal organization and the ongoing exchanges among them and their surroundings (Rousseau, 2017). The GST subcomponents for healthcare leaders included (a) feedback loops, (b) self-referent, (c) system dynamics, (d) sense-making, (e) complexity measurement, and (f) goal-oriented guided behavior. GST is an open system with various parts interacting with one another in nature (Patton et al., 2016). Braithwaite (2015) defined the GST as an intricate network of parts of the system and the cumulative method. The healthcare environment is a network of systems embedded in higher-order networks of systems influencing each other and all the members of the healthcare delivery process (Simola, 2018).

The DMAIC methodology of LSS stemmed from the plan, do, check, act (PDCA) cycle of Dr. William Edward Deming in 1951. PDCA is the Shewhart's cycle's updated version, while in Japan for Dr. Deming's quality training (Saier, 2017). Bill Smith and Mikel J. Harry 1986, both engineers for Motorola, created the Six Sigma theory of process improvement to improve the quality of performance (Dziak, 2017). The goal of DMAIC is to identify and remove the root cause(s) of errors, reducing variability and improving the quality of key business processes. Leadership needs skills in managing complex systems to successfully implement quality improvement methods and approaches (Jones et al., 2019). Successful lean implementation requires timely and efficient cross-functional teamwork in multiple departments in multiple interlinked processes for optimizing healthcare delivery, and ED patient wait times. I combined GST and DMAIC implementation through the composite conceptual framework of GST and DMAIC, which is to provide a lens for critically understanding the strategies the hospital leaders used to improve ED patient satisfaction and grow revenue.

Operational Definitions

5S: a waste-reducing technique to sort activities, stabilize, shine, standardize, and sustain to optimize patient satisfaction, quality, efficiency, access, added value, and grow revenue (Sommer & Blumenthal, 2019).

Added Value: a product of an activity or process yielding a financial or quality improvement, efficiency, outcome, access, timeliness, safety, and benefit through the patients' perspective (Zipfel et al., 2019).

A3: a thought process made as a report on an 11x17 A3 paper, defining the problem or waste, standardizing the process through root cause analysis and recommendation, visualizing the current and expected condition, which was followed by an implementation and sustainability plan (Rundall et al., 2020).

DMAIC: a continuous improvement methodology to identify, measure, calculate, implement, and execute processes to minimize variation and resolve issues, known as Define, Measure, Analyze, Improve, and Control (DMAIC) was a tool of Six Sigma (Dziak, 2017).

Flow: an added value activity for patient satisfaction regarding timeliness and efficiency of the process (Tlapa et al., 2020).

Lean: a process improvement strategy to remove wastes, identify value, and create flow and pull by minimizing process times and optimizing business processes to enhance business operations (Park et al., 2020).

Six Sigma: a process improvement application technique such as DMAIC to minimize variation, making the process more uniform, focusing on the problem rather than the system the problem was embedded in (Park et al., 2020).

Value Stream Mapping: or (VSM) a process improvement tool to visually analyze and map out each step in the process from beginning to end to remove wastes, minimize non-value-added activities, and standardize work-flow processes optimizing delivery outcomes (Po et al., 2019).

Waste: an activity or process step contributing to the lack of added value, client satisfaction, profitability, productivity, efficiency, effectiveness, or timeliness (Randhawa & Ahuja, 2018).

Assumptions, Limitations, and Delimitations

An assumption is a belief held by the researcher as accurate or definite, allowing the researcher to conduct the study and analyze and trust the outcomes for the data of a particular population in a particular environment, true without verification (Tuthill et al., 2020). Limitations are weaknesses in a research study that could potentially influence the study's results, analysis, and conclusion (Ross & Zaidi, 2019). Delimitations refer to the study's boundaries or scope regarding the study's objectives, research questions, background of the study, and participants (Theofanidis & Fountouki, 2018). The assumptions, limitations, and delimitations of the research study are listed accordingly.

Assumptions

Assumptions are beliefs the researcher holds to validate to collect accurate information from the participant, which may or may not be true and are subject to the bias of the participants' experience and the researchers' interpretation (Tuthill et al., 2020). An assumption is a belief that cannot be verified (Armstrong & Kepler, 2018). A researcher would have to consider that the participant is as honest and could communicate the genuine reality of the experience and understanding of the information (Tuthill et al., 2020). I assumed that the participants trusted me enough to share confidential and accurate information to the best of their knowledge and ability and the

documents for review were up-to-date, complete, and valid. I assumed the participants would not worry about any interference with jeopardizing their employment when answering all questions with full transparency.

Limitations

Limitations, weaknesses, or potential gaps in the research study existed due to the researcher's choice or circumstantially (Ross & Zaidi, 2019). The number of participants was a limitation due to the medical environment's current pressures (Ross & Zaidi, 2019). It was also likely that all participants invited did not participate due to current pressures in the medical environment due to the pandemic. Initially, the participants were supposed to have face-to-face interviews. They received an invitation for that option, but due to the COVID-19 pandemic, they proceeded with the interview process virtually. Participant bias in responses may not be ruled out if the interviewees provide favorable responses over authentic responses (Ross & Zaidi, 2019). Participants may also behave or respond differently when they knew they were being recorded for a formal interview and may not have spoken so freely as in everyday conversation without recordings as a potential limitation.

Delimitations

Delimitations are the boundaries the researcher decides to include or exclude to make the study possible within a given timeframe with the resources available or lack thereof (Theofanidis & Fountouki, 2018). This research study's delimitations included five healthcare leaders from hospitals who successfully improved ED patient satisfaction

to increase revenue from the United States. A delimitation was a particular sampling method selected or used due to the availability of resources or lack thereof (Theofanidis & Fountouki, 2018). I used purposeful sampling as a technique to maximize the use of the available resources.

Significance of the Study

Contribution to Business Practice

Approximately $500 of revenue growth resulted from each patient left without being seen (LWBS) in EDs (Spencer et al., 2019). Healthcare systems that are more efficient can care for more patients, leading to higher patient satisfaction and revenue growth to support additional personnel for patients (Robinson et al., 2020). Lengthy hospital waiting times, extended length of stay, overcrowding, high LWBS, and excessive ED patient flow times lead to low patient satisfaction and revenue loss (Ortíz-Barrios & Alfaro-Saíz, 2020). Decreasing extended patient wait times, reducing the overcrowding ED experience, and reducing the number of LWBS patients improve patient satisfaction leading to revenue growth (Spencer et al., 2019). My findings and conclusion of my study provided healthcare leaders with strategies to improve ED patient satisfaction to improve healthcare delivery efficiency, resolve operational deficiencies, and grow revenues.

Implications for Social Change

Performing a single qualitative case study in LSS strategies improving ED patient satisfaction contributed to positive social change by enhancing the quality of life

regarding the health of the people and families in communities. Educating community members to become more health conscientious inspired increasing both preventative healthcare and the maintenance of good health. Reviewing, implementing, or adapting the study's findings also contributed to positive social change by identifying strategies healthcare leaders use to improve healthcare delivery to the community.

A Review of the Professional and Academic Literature

In this qualitative single case study, I explored strategies healthcare leaders use in the hospital industry to improve patient satisfaction and grow revenue. I conducted the literature review to understand the background of this qualitative research study. I explain in this literature review all of the relevant evaluations, syntheses, and analyses of the themes from previous research on lean practices to improve patient satisfaction and grow revenue. I reviewed various resources such as scholarly books, peer-reviewed journal articles, and other literary forms that provided an in-depth understanding and analyses of healthcare leaders in the hospital industry using LSS to improve ED patient satisfaction leading to revenue growth.

Literature Review Organization

I include four major parts in the literature review: the conceptual framework, supporting and contrasting theories, lean, and the relationship between patient satisfaction and revenue growth. The use of lean application allows one to recognize high-performance work systems involving teamwork and is more effective in complex work tasks than low-complexity work tasks to continually improve the quality of the healthcare

delivery processes and grow hospital revenue (Rees & Gauld, 2017). In low-complexity tasks, applying lean tools did not always contribute to higher productivity or higher satisfaction and may contribute to increased employee workload without added benefits (Rees & Gauld, 2017). I looked at lean through the lens of GST at the macro level, such as when deciding to use lean in dealing with high-performance work systems to optimize productivity, and DMAIC at the micro level when applying lean tools to complex work tasks to increase satisfaction and productivity. I approached the literature review by researching and analyzing academic texts and searching databases such as Google Scholar, the Walden University Library system, dissertations, and theses at Walden University. I used the following databases to search for sources: Ovid, ProQuest Central, Sage, PubMed, CINAHL & MEDLINE combined search, Cochrane, ScienceDirect, and Ulrich's periodical directory. Keywords for the search were: *lean, patient satisfaction scores and grow revenue, lean thinking, lean change, lean leadership, healthcare leaders, hospitals, lean implementation, patient care outcomes, patient satisfaction, revenue growth, quality improvement,* and *lean transformation*. All the database searches yielded 162 peer-reviewed scholarly journal articles and ten academic texts. There 95% of peer-reviewed scholarly journal articles and 85% of the peer-reviewed literary journal articles were within the last five years.

General System's Theory (GST)

I used GST for the conceptual framework, in GST, researchers have the advantage of flexibility in the analysis of one's requirements of the data for emerging themes

(Fischer & Heinrichs, 2018). As a result, when I used GST as the macro lens for the conceptual framework, it allowed me to explore the progressive construction of an emerging descriptive and exploratory theory (Gómez-Salgado et al., 2018). Karl Ludwig von Bertalanffy, a biologist from Australia, was the founder of the GST in 1968 (Grimes, 2017; Yan et al., 2020). GST is a model consisting of properties and conducts which are internally and externally dependent on one another (Rousseau, 2017). GST is found in healthcare in the environment as a network of systems embedded in a higher-order network of systems influencing each other in the healthcare delivery process (Simola, 2018).

There are several applications of GST in the literature. Karl Ludwig Von Bertalanffy stated one should find the root cause or change the system's input to change it in GST (Kinyingi et al., 2020). When considering GST, the whole system is more significant than the individual parts of the subsystems, and any modification to an input or output in a subsystem results in transformations of the whole system (Kinyingi et al., 2020). GST's focus is on the relationships and the arrangements of the parts working as parts of a whole, such as cells and organs working together in a human body as parts of a whole as biological systems (Yan et al., 2020). Human beings who work in organizations do not just have interrelationships with one another but also interact with their environment as part of a whole system in healthcare organizations and hospitals.

The application of GST stemmed from the dynamic coupling of two highly correlating subsystems in the regional economic industry and the high-tech sector

towards the composite systems to improve technological and economic efficiency, innovation, business, and profitability (Liang et al., 2020). GST's application in multiple industries, such as the biological, psychological, educational, social, financial, business, healthcare, and technological industries, enhances collaborative innovation, efficiency, productivity, resource sharing, profitability, and sustainability. The use of DMAIC by healthcare leaders serves as an additional lens of lean six sigma methodology, which could help with the successful lean implementation strategies to improve ED patient satisfaction and grow revenue.

Define, Measure, Analyze, Improve, and Control (DMAIC)

The benefits of using the lens of the empirical methodology of DMAIC along with GST were to help healthcare leaders identify, calculate, measure, implement, and direct processes to resolve issues and improve patient satisfaction scores (Dziak, 2017). The Motorola manufacturing processes used the core of LSS created by Mikel J. Harry and Bill Smith in 1986 to minimize product defects to a microscopic level, as a methodology of LSS, called DMAIC (Dziak, 2017; Patton et al., 2016). The DMAIC methodology as process improvement was not suitable for all problems but should be involved with no known cause that must be worthwhile and with no apparent solution available (Albeanu et al., 2010). The basis of continuous improvement is provided by the DMAIC methodology to reduce variation, which was unwanted through a statistical control process in various industries. DMAIC and LSS were used in academia with problem-based learning to transition engineering students into business organizations

upon graduation (Martínez-León, 2019). Like the educational, manufacturing, and various other industries, the healthcare organizations' leadership benefited from using the LSS methodology of DMAIC in combination with GST to implement lean practices to improve patient satisfaction scores.

PDCA to PDSA to LSS to DMAIC

DMAIC is a performance improvement methodology of LSS used by healthcare leaders to implement lean practices in healthcare organizations. The healthcare environment is a network of systems embedded in higher-order networks of systems influencing each other and all the members of the healthcare delivery process (Simola, 2018). Healthcare leaders implement lean as a high-performance work system, which includes multiskilling, teamwork engaging, and involving employees in continuous improvement activities (Rees & Gauld, 2017).

The DMAIC methodology of LSS began from the PDCA cycle of Dr. William Edward Deming, in 1951, as the Shewhart cycle for continuous improvements' updated version (Saier, 2017). Dr. Deming helped General Motors succeed in 1987 when he changed the PDCA cycle to the PDSA cycle in 1993 to honor Shewhart's ideology (Saier, 2017). The study phase in PDSA was essential to analyze the results leading to the lean implementation process's failure or success in developing innovative knowledge through learning. Bill Smith and Mikel J. Harry, 1986 both engineers for Motorola, created six sigma in combination with lean for process improvement to improve the quality of performance in creating LSS (Dziak, 2017; Patton et al., 2016). The goal of DMAIC is to

identify and remove the root cause of errors, minimize variability, and improve the quality of key business processes. Continuous improvement efforts began with PDCA and then changed to PDSA throughout history. Six sigma led to the development of LSS and DMAIC, which was a specific core methodology of LSS that is used by healthcare leaders to implement lean practices for quality improvement efforts. Healthcare professionals need skills in managing complex systems to implement quality improvement methods and approaches into practice successfully (Jones et al., 2019). Therefore, the factors influencing the use of lean required timely and efficient cross-functional teamwork in multiple departments in multiple interlinked processes for optimizing healthcare delivery and the quality of care.

Similar Supporting and Alternative Contrasting Theories

In addition to the conceptual frameworks of GST and DMAIC, similar supporting theories included total quality management (TQM) and sort, set-in-order, shine, standardize, and sustain (5S). A contrasting theory consisted of the chaos theory. The study's issue or problem was healthcare leaders in hospitals lack strategies to improve patient satisfaction and grow revenue. Several hospitals (64%), patients (27%), and market (9%) level factors have high correlations with low patient satisfaction scores, inopportunely impacting monetary reimbursements and quality of care (Mazurenko et al., 2017). Maalouf and Gammelgaard (2016) suggested leadership's three organizational challenges were performance, organization, and belonging to achieving lean transformation in business success. Several supporting and contrasting theories and

conceptual frameworks helped healthcare leaders recognize factors to improve ED patient satisfaction and grow revenue.

Total Quality Management (TQM)

TQM evolved during the 1970s from the electronic industry leaders in Japan, based on Dr. Edward Deming's philosophies vested in the quality improvement processes and performance improvement methodologies (Dawson, 2019). TQM focused on customer satisfaction maximization by improving work processes, employees' roles, management responsibility, and statistical analysis (Dawson, 2019). TQM's key concepts revolved around best practice benchmarking, leadership commitment, team-based quality improvement integration at all levels, rewards and recognition, employee training, empowerment, and education (Dawson, 2019). Leadership formed a steering committee to lead the successful implementation of LSS improved quality education, integration, and performance improvement (Chiarini, 2011). Future researchers considered leadership strategies for enhancing the implementation of lean service improvements related to six sigma, TQM, or organizational process improvements (Gupta et al., 2016). TQM was not a useful conceptual framework to me for this study because GST and DMAIC were a better fit for supporting healthcare leaders in improving ED patient satisfaction in the hospital industry and growing revenue. While TQM was one of the qualitative improvement tools, in the current qualitative research study, the focus was on leadership and strategies to improve ED patient satisfaction and grow revenue.

Sort, Set in Order, Shine, Standardize, and Sustain (5S)

Like GST, DMAIC, and TQM, another conceptual framework was applied at the microscopic level to improve the quality of processes and procedures in healthcare delivery known as the 5S. One of the five principles of LSS was to identify and eliminate waste. According to Sommer and Blumenthal (2019), the 5S model helped healthcare leaders with the waste-reducing step by sorting or classifying, setting in order, or stabilizing, shine for ease, standardizing, and sustaining or maintaining. In the 1950s, Takashi Osada introduced 5S to businesses in Japan for organizational learning, change, and development strategy. Hiroyuki Hirano then declared 5S as a waste-eliminating tool in a practical approach to increasing corporate competitiveness (Randhawa & Ahuja, 2018). The 5S conceptual framework supported enhanced organizational safety standards and sustainable quality improvement by minimizing cost and waste and conserving time, energy, capital, and errors (Randhawa & Ahuja, 2018). While the conceptual framework of 5S did assist in sustaining quality improvement efforts, GST at the macroscopic level and DMAIC at the microscopic level best-supported strategies to improve ED patient satisfaction scores and grow revenue.

Chaos Theory

Chaos theory was a different concept from GST at the macroscopic level of the system. Chaos theory emerged in the 1980s as an irregular random motion produced in a complex dynamic system in the financial sector to analyze financial stability, bring control over the financial system, and relieve a financial crisis through volatile financial

markets (Lu, 2020). Chaos theory's concept stemmed from small changes in the initial state, causing substantial changes in the process as a butterfly effect in literature applications (Dumitrescu, 2019). The concept of chaos theory was the unpredictability of non-random behavior and complex systems existing within irregular and dynamic systems, where a small change in the attractor caused the change in behavior of more extensive processes (Dumitrescu, 2019). Chaos theory was applied to nonlinear systems and was unpredictable yet supported the attraction, mutation, evolution, and sophisticated systems analyzed dynamically (Lu, 2020). Chaos theory was approached through a controlled linear feedback system to help bring a chaotic system back into equilibrium (Lu, 2020). Chaos theory was a different theory to GST as chaos theory was more about nonlinear dynamic systems, and GST represented systems embedded in complete systems functioning as interactive interlinked systems within systems. I did not choose chaos theory as my conceptual framework as my research focused on a series of process changes in embedded systems mutually dependent on each other to improve ED patient satisfaction and grow revenue through the lens of GST and DMAIC.

The Evolution of Lean Thinking

While various concepts were significant for healthcare leaders successfully implementing strategies, lean was an effective concept in various industries to help leaders align process efficiencies, increase productivity, and profitability, minimize waste, minimize the duplication of work, and improve client satisfaction. Some leaders defined lean thinking as a limited set of production techniques. In contrast, others

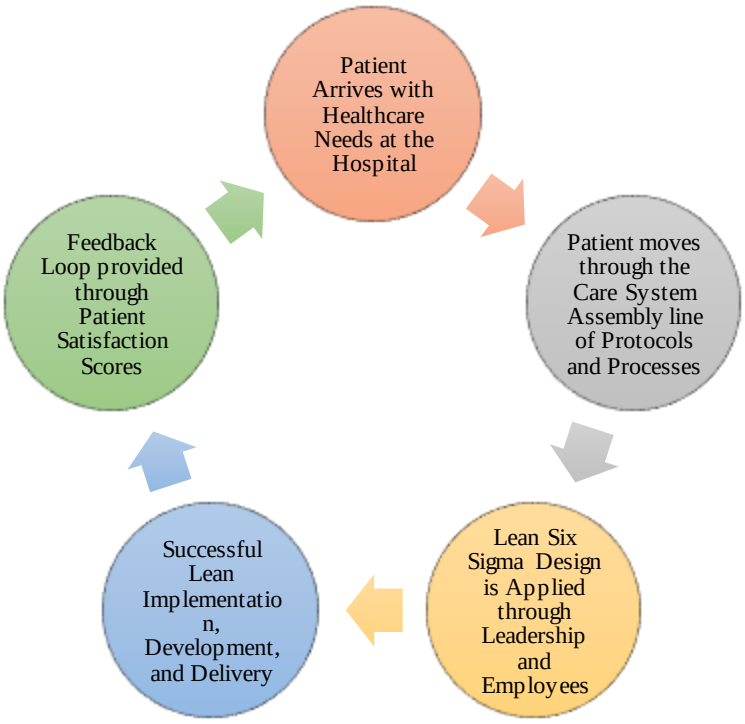
described it as a broad set of practices and principles applied jointly in creating value for clients and eliminating waste (Hozak & Olsen, 2015). The concept or definition of lean stemmed from the leadership at the TPS who defined it as an all-inclusive executive methodology minimizing inefficiencies and waste by engaging problem-solving teams and enhancing client value (Hozak & Olsen, 2015). Leadership failed to implement lean training strategies at a 98% rate in corporations contributing to the increase in business costs (Sisson & Elshennawy, 2015). Lean is a management technique used by leaders to identify waste actions and eliminate them in process improvement strategies (Ajami et al., 2015; Ortiz-Barrios & Juan-José, 2020). The idea of lean or lean thinking had various meanings throughout various literature and applications by professionals. However, the central definition revolved around optimizing business processes and practices by considering the waste reduction concept.

The lean concept evolved over 100 years ago by Frank Gilbreth, who eliminated unnecessary motions in task performance through task analysis of work (Al-Haddad & Kotnour, 2015). The primary definition of a lean concept was the complete elimination of waste from all processes, and all organization members were from the early 1990s to the 2000s (Pakdil & Leonard, 2015; Wilson, 2010). The breakthrough in quality management evolutionary history began after the Second World War due to Japan's environmental challenges (Gupta et al., 2016). The Japanese used TPS at the Toyota Motor Corporation incorporated the production ideas of Henry Ford by involving and respecting employees in continuous improvement and creating efficiencies by minimizing waste (Crocitto,

2015; Emiliani, 2006). The evolutionary definition did not occur as a single-point event yet as a dynamic learning process from various textile and automotive sectors. Leadership aimed to create process efficiencies emerging as TPS, which was later known as lean. The fundamental constructs of von Bertalanffy's (1968) open systems model for the GST for the dynamic feedback cycle consisted of understanding systems interconnected to systems exchanging information (von Bertalanffy, 1968). GST and DMAIC with lean strategy can help with successfully increasing patient satisfaction scores and growing revenue.

Figure 1

Successful Lean Implementation Feedback Cycle



The successful lean implementation feedback cycle in the healthcare system for healthcare leaders, management teams, and employees ensures optimal patient satisfaction scores and future referrals from patients. Several other industries also utilized GST, such as biological, engineering, physics, instructional or educational, and retail businesses. For example, a network of systems embedded in a higher-order network of systems was visible in the physical sciences (Malecic, 2017). Every field contained levels of connectivity and degrees of networking, including communication systems, stakeholders, technologies, and various processes leading to optimal organizational and business performance (Braithwaite, 2015). The goal of having a vision of an in-depth understanding through the lens of GST and DMAIC allowed the healthcare leader to comprehend the intricate levels of connectivity and networks and their synchronized interdependence to optimize healthcare delivery and patient satisfaction and grow revenue.

Lean and Six Sigma

Lean and six sigma had differences in the theoretical basis, application guidelines, focus, primary effect, and criticism (Park et al., 2020). The theoretical basis for lean was to remove wastes and application by identifying value, value stream, flow, pull, and perfection, where the focus was on the flow, the primary effect was in reducing lead time, and the statistical analysis was not valued (Park et al., 2020). Six sigma's theoretical basis was on reducing variation and application through DMAIC, where the focus of leadership was on the problem, the primary effect was a uniform process, and the process improved

independently where system interaction was not considered very much (Park et al., 2020).

Simons et al. (2017) found the combination of different types of lean interventions by healthcare professionals enhanced patient safety and employee satisfaction while reducing patient wait times. Supporting lean and six sigma implementation improved employee performance to meet patient satisfaction goals at 215 U.S. hospitals (McFadden et al., 2015). Successfully implementing lean practices by healthcare leaders to meet the organizational goals favored patient safety and increased patient responsiveness (McFadden et al., 2015). McFadden et al. confirmed six sigma and lean projects support patient requirements and respond swiftly to their healthcare needs. Gabutti et al. (2017) concluded lean features such as staffing, scheduling, new employee roles, coordination, process design, workspace layout, and communication provide staff empowerment, and problem resolution leads to more efficient and effective healthcare delivery. An efficient and optimally functioning healthcare delivery system led to higher patient satisfaction and revenue growth.

Leadership Influencing Lean

The healthcare sector and healthcare leaders in the U.S. embraced lean thinking in the healthcare industry from the manufacturing industry due to rapid changes in new technologies and incentive structures, environment, moral attitude, shrinking budgets, and rising costs (Hussain & Malik, 2016). According to Hussain and Malik, leadership applied lean practices in the healthcare sector at the beginning stages of development and

had challenges incorporating them into complex healthcare systems. Haque and Chaudhuri (2015) stated leadership enhances organizational lean thinking by creating and implementing a lean culture, concept, tools, and planning. The administration improved human performance factors and work processes in healthcare delivery by addressing the cause of the problem to enhance productivity, price, costs, efficiency, and quality and minimize errors (Hussain et al., 2015). Leadership implemented lean practices improved worker attitudes, skillsets, and knowledge towards successful completion of job tasks.

Implementing the lean process improvement and achieving zero defects by the leadership provided the optimum healthcare delivery time, safety, process, and quality and minimize waste while increasing worker outcomes and job satisfaction (Hussain et al., 2015). Haque and Chaudhuri claimed leadership improved lean practices by encouraging self-regulated learning, incorporating a holistic perspective, learning principles, and continual training for trainers. Improving the quality of sustainability, safety, and efficiency in healthcare delivery by leadership contributed to social change by enhancing employee job satisfaction and retention rates (Hussain et al., 2015). Haque and Chaudhuri highlighted leadership and management implementing lean thinking drives lean practices creating value leading to organizational effectiveness and sustainable success. The lack of leadership effectively implementing lean practices led to an increase in worker errors in completing tasks jeopardizing corporate sustainability, performance, patient care outcomes, patient satisfaction, and revenue loss.

From 2015 to 2017, a survey found that about 54% of public U.S. hospitals have adopted lean implementation for about five years, with the most common lean practices in PDSA cycles, daily huddles, tracking prioritization, standardizing work, and visual management (Po et al., 2019). The adoption of lean was significant in association with Medicare spending per beneficiary out of 1,152 U.S. hospitals in 2017, with an alpha less than .05 (b =-.005, p=.027) (Rundall et al., 2020). The ED leaders implemented lean more than other departments in public U.S. hospitals (Po et al., 2019). In public U.S. hospitals, huge numbers of uninsured patients go through treatment where the government tightly controls hospital expenditures, and lean application has become vital for patient satisfaction and revenue growth (Po et al., 2019).

The lean application created a set of tools and principles to improve organizational culture and performance by using PDSA cycles, value stream mapping (VSM), and identifying solutions through A3 thinking (Po et al., 2019). A3 thoughts or reports were made on the 11x17 A3 paper, stating the definition of the problem, the current and target condition, root cause analysis, and recommendations, followed by an implementation and a sustainability plan (Rundall et al., 2020). The A3 thinking and report identifies the wastes, standardizes processes, and shows visual charts of expected and actual performance (Rundall et al., 2020). The A3 report also outlined the collaboration of the daily huddles, the plan of the day, the status of the problem-solving, and PDSA cycles successfully implemented the newly designed work for process improvements (Rundall et al., 2020). The implementation of lean by healthcare leaders

was not a linear process and had a high level of variability from organization to organization. The standardization of lean implementation by healthcare leaders took continuous improvement over time, ongoing training, clear communication, leadership commitment, front-line worker empowerment, elimination of non-added value activities, and work process standardization (Po et al., 2019). Leadership adopted lean management strategies to help hospitals reduce variance and improve patient outcomes, satisfaction, and financial performance (Rundall et al., 2020).

The control phase of LSS requires a control plan to ensure sustainable results over time (Downen & Jaeger, 2020). There was a process owner who communicated the control plan to the team to promote the sustainability of the LSS implementation (Downen & Jaeger, 2020). The staff had an organizational culture that was open to changes. Strategies for change management included senior leadership support, urgency creation, communication, front-line team composition, and simplified training (Downen & Jaeger, 2020). Departmental meetings communicated various changes. Monthly audits by healthcare leaders helped achieve LSS process sustainability (Downen & Jaeger, 2020). To ensure LSS process improvements were sustainable, monitoring parameters and ongoing evaluations were vital by leadership (Downen & Jaeger, 2020).

Lean Implementation and Patient Care Outcomes

Ulhassan et al. (2014) claimed hospital professionals implementing lean interventions transformed teamwork over time. Simons et al. (2016) stated healthcare professionals' lean implementation improved quality improvement initiatives by making

the decision-making process more agreeable. Successful lean implementation positively influenced employee problem-solving skills and organizational structure (Worley & Doolen, 2015). The significance of staff perceptions of better workplace environments promoted better healthcare delivery and better patient care outcomes (Kalantari & Snell, 2017). Successful implementation of lean practices led to enhances teamwork and employee development and skills, contributing to improved patient care, satisfaction, and quality improvement.

Shokri (2017) performed quantitative analysis research of six sigma, lean, and lean six sigma in the last two decades to identify gaps in research regarding supply chain management (SCM), lean, and sustainability. Factors related to six sigma's success by healthcare leaders resulted from the foundation element regarding leadership and management commitment, operational tools and roadmaps, and sustainability regarding customers, suppliers, and strategies (Shokri, 2017). Shokri mentioned DMAIC as the roadmap most commonly used in process improvement by organizational leaders utilizing six sigma. Healthcare leaders having poor project selection, lack of resources, and internal resistance as critical barriers to six sigma (Shokri, 2017). Shokri highlighted lean management as a business process improvement strategy that was mostly considered utilizing the roadmap of TQM and just-in-time (JIT) delivery, evaluating wastes and value generation from a stakeholder and customer requirements. Leadership utilized the implementation of LSS to minimize costs and process cycle time to more sustainable process improvements and profitability.

Lean Inspired Transformation Program and Quality Improvement

Sustainable lean implementation by leadership improves shared vision and enhanced process predictability and standardization (Simons et al., 2016). The leadership approach influences health lean management (HLM), integrated with clinical risk management (CRM), to solve corporate issues and improve efficiency in healthcare settings (Crema & Verbano, 2016). For example, Mazur et al. (2017) recommended lean teams with large footprints with fewer floors promote the efficient flow of equipment, patient flow, staff flow, and flow of supplies. Lean management by healthcare leaders reduced uncertainties and ambiguities in the cause-effect relationship of the clinical process (Simons et al., 2016). Healthcare professionals benefited from successfully implementing lean practices and programs, improving the sustainability of patient outcomes in hospital settings, and leading to optimal patient satisfaction and revenue growth.

Interviews with 99 individual healthcare professionals in three healthcare organizations over three years highlighted physicians and their colleagues as vital components to successful lean implementation and quality improvement (Fournier & Jobin, 2018). Successful project implementation involves leadership investment to provide accountability and oversight to the team, re-organizing the team commitment, overcoming emotions with the project, and developing a deep understanding of the project, providing positive coaching to the team (Van Dam et al., 2020). Healthcare professionals increased healthcare delivery capacity by improving flow to meet patient

demands by reducing the time length of outcomes when implementing lean healthcare (Zepeda-Lugo et al., 2020).

Technological Advancements in Lean Implementation

Leaders in healthcare in the 21st century were more concentrated on growing revenue and improving patient satisfaction by focusing on using the most up-to-date technology (Berger et al., 2020). Various uses of technological advancements in healthcare and LSS implementation by healthcare leaders are public-private partnerships, pay-for-performance incentives, digital platforms, digital supply chains, infrastructural and diagnostic technology, infectious disease surveillance, and big data (Visconti & Morea, 2020). Telemedicine, m-Health, and e-health applications were additional technological advancements in LSS implementation by healthcare leaders to improve patient health monitoring, patient satisfaction, the quality of healthcare delivery, and growing revenue (Visconti & Morea, 2020). LSS implementation by leadership uses technological advancements in healthcare, including electronic health records, MedTech applications, 24/7 disease management, healthcare analytics, precision medicine, patient feedback, medical access portals, and accessing innovative business-to-business suppliers (Visconti & Morea, 2020). While technological advancements, business process improvement implementation, and medical advancements by leadership enhanced healthcare delivery, patient flow, patient satisfaction, and revenue growth, additional factors improved healthcare delivery (Isfahani et al., 2020).

Organizational Culture and LSS

Healthcare leaders developed an organizational culture that was receptive and supportive of LSS (Yaduvanshi & Sharma, 2017). Organizational leaders focused on group culture development were having success in implementing quality initiatives such as LSS (Knapp, 2015). Factors for successful LSS implementation and improving patient satisfaction by healthcare leaders occurred by removing unnecessary costs and wastes, improving the patient safety culture, adding value-added activity and time in healthcare delivery, good teamwork, and work culture, and improving employee competency levels (Ahmed et al., 2018). A developmental, organizational culture is when the group culture by leadership focuses on risk-taking, innovation, individuality, and flexibility (Knapp, 2015). Ways of leadership influencing organizational culture were by measuring the organizational culture and actively coaching as role models (Knapp, 2015).

Healthcare leaders reducing costs and improving customer satisfaction when implementing LSS successfully in the healthcare organizational culture requires improving quality and speed in the improvement process (Ahmed et al., 2018). The key to healthcare leaders helping LSS thrive in continuous quality improvement in healthcare organizations is communication, training, and support (McInvale, 2018). When hospital leaders create and develop an organizational culture supporting and sustaining LSS, they develop a substantial competitive advantage over neighboring hospitals (Yaduvanshi & Sharma, 2017).

In the following section, I review the literature associated with strategies healthcare leaders use to improve patient satisfaction and grow revenue in the hospital industry. Previous research by researchers supported organizational culture, leadership influence, LSS, patient engagement and outcomes, and technical advancements improving patient satisfaction and leading to revenue growth (see Figure 2). Therefore, to address the business problem of healthcare leaders using strategies to improve patient satisfaction and grow revenue, healthcare leaders addressing the vital contributing factors such as organizational culture, leadership, LSS, patient engagement and outcomes, and technical advancements in the hospitals are important.

Figure 2

Factors Leading to Increased Patient Satisfaction and Revenue Growth

Improving Patient Satisfaction to Grow Revenue

ED hospital visits by patients increased from $128.97 million to $144.82 million from 2010 to 2016, and mean charges per visit increased from $2,061 to $3,516 (Lane et al., 2020). The cost of ED care for patients to the healthcare industry was about $200 billion in U.S. healthcare spending (Lane et al., 2020). Hospital spending by patients grew in 2018 to about 4% (Sisko et al., 2019). In 2019, hospital spending by patients increased by 5% due to increased hospital service usage (Sisko et al., 2019). From 2020-2027 hospital spending is expected to grow to about 6% per year, with a peak in 2026 due to the disproportionate hospital Medicaid payment schedule, which will end in September of 2025 by law (Sisko et al., 2019). Healthcare expenditures by patients are growing due

to the increase in the aging population, increase in costs of services and goods, enrollment shifts in insurance, and income growth (Cuckler et al., 2018). While direct and indirect costs of healthcare increased for patients due to various reasons, the utilization of expensive healthcare information technology contributed to the elevated costs and the intensity of care (Lane et al., 2020).

As hospitals were changing to accommodate patient needs, healthcare administration leaders sought innovative methods to improve patient healthcare satisfaction by enhancing quality, increasing efficiency, and reducing costs. Healthcare leaders used media, commercialization, and rapid change in healthcare technologies shaped patients' perceptions and attitudes (Jain & Pareek, 2020). However, the root of patient satisfaction for healthcare leaders was linked to long patient wait times, unavailability of medications, and the lag in turnaround time within departments (Jain & Pareek, 2020). The connection between more prolonged waiting times and the effect on delivering quality healthcare has negatively impacted healthcare delivery (Chang et al., 2020). Conversely, healthcare leaders using LSS methodologies in patient-orientated concepts effectively identified and improved service speeds (Chang et al., 2020). Furthermore, a discord in standard operating procedures and a policy of patient satisfaction by healthcare leaders demonstrated to be an ongoing issue for hospitals meeting key indicators that result in higher patient satisfaction scores (Jain & Pareek, 2020).

As a result of the inefficient operational flow within hospitals, patients lose control of their healthcare expenses. They were dependent on healthcare administrators, professionals, and providers to determine their healthcare services and costs (Shepherd & Shepherd, 2019). The disconnect from the healthcare system and the constraints of regulation, insurance requirements, and the lack of general knowledge of the patients increased the cost of healthcare for patients, decreased provider profits, and general disfranchisement of the decision-making process when controlling healthcare costs (Shepherd & Shepherd, 2019).

Therefore, healthcare systems leaders were striving to implement significant change within the healthcare system for ongoing improvement in healthcare delivery and operations. There were several challenges that healthcare leaders face when implementing change (Green et al., 2018). Green et al. stated it was challenging to find leaders in healthcare organizations who were knowledgeable in professional relationships while having the experience that demonstrates leading effectively and capturing documented return on investment. Healthcare organization leaders made a compelling case supported by in-depth knowledge of new payment models and industry trends (Green et al., 2018). As a result, the connection of the value-based approach in payment, transparency, and consumerism demonstrated operational improvement for healthcare leaders and hospital systems without compromising performance improvement strategies (Green et al., 2018).

The High Cost of Healthcare in the United States

A high number of patients in the U.S. skipped seeking health consultations or health care due to the high costs of out-of-pocket spending, even with insurance coverage, rather than in other high-income countries (Papanicolas et al., 2018). Approximately four million of the U.S. population delayed or missed access to healthcare due to transportation barriers, leading to potentially medically severe long-term health conditions and an increase in healthcare costs (Joyce et al., 2019). Less knowledgeable patients who were less likely to seek care about medical conditions, communicate concerns, and adhere to recommended treatments contributed to higher healthcare costs (Lindsay et al., 2018). Healthcare expenditures in the U.S. by healthcare leaders and hospital systems were double of other high-income countries due to the significant cost drivers such as administrative costs, prices of goods, labor, and pharmaceutical costs (Papanicolas et al., 2018).

The total cost of waste by healthcare leaders in healthcare spending in the U.S. was 25%, with about $900 billion in total costs of waste and a potential $300 billion in savings from successfully administering waste-reducing interventions by leadership (Shrank et al., 2019). Hospital leadership reducing LWBS patients by 30% leads to $190 million in savings in EDs (Ortíz-Barrios & Alfaro-Saíz, 2020). Super-users' patients account for about 28% of all ED visits and comprise 8% of ED patients (JEN, 2020). Super-users are patients who use the ED excessively, which contributes to unnecessary and recurring ED workup, reduces staff morale, decreases the readiness for emergencies

in the ED, causes low patient satisfaction, and increases healthcare costs (JEN, 2020). Hospital leaders implementing individualized care plans (ICPs) for 452 patients for high ED utilizers for four years minimized direct and indirect costs by 42% in 6 months (Fertel et al., 2019).

In 2009, $30 billion by congress was allocated by the health information technology (HIT) for the economic and clinical act as an incentive to adopt the use of HIT with patient engagement (Asagbra et al., 2019). Hospital leaders adopting HIT earlier had 9% more operating revenue than 6% more operating income for hospital leaders taking HIT later (Asagbra et al., 2019). Leadership adopting blockchain technology, where patients and healthcare networks share data digitally through applications, maintained the continuum of care of patients externally, to follow-up care, urgent care, and ambulatory care (Peral et al., 2020). Hospital leaders could save $219 billion annually on overhead costs by unifying administration and billing by consolidating all insurance frameworks into one type of framework, such as the Medicare framework (Galvani et al., 2020). Hospital leaders with an innovative organizational culture benefit from cost efficiencies, improved patient satisfaction, and growing revenues.

Patient Satisfaction Connection to Growing Revenue

Most ED challenges for hospital leaders were related to patient satisfaction and revenue growth which occurred when there was overcrowding, high LWBS, prolonged wait times, extended length of stay (LOS), and excessive patient flow time (Ortíz-Barrios

& Alfaro-Saíz, 2020). After leadership implementing LSS, one hospital experienced a 3% drop in LWBS. In contrast, another hospital experienced a 22% drop in LWBS in 3 years, so the results may vary from hospital to hospital (Ortíz-Barrios & Alfaro-Saíz, 2020). Healthcare leaders adopting an additional waiting room in the ED allowed for a 66% drop in LWBS, improving patient satisfaction and revenue growth (Ortíz-Barrios & Alfaro-Saíz, 2020). Leadership applying LSS to triage in hospital EDs improved patient-lead time by 17%, patient flow by 16%, and patient satisfaction by 10%, where direct per-patient expense dropped by 9% (Ortíz-Barrios & Alfaro-Saíz, 2020). Adding another ED waiting room, led to optimizing patient triage processes, and minimizing LWBS, patient flow, and wait times were various LSS processes and quality improvement measures for hospital leadership to explore and implement to improve patient satisfaction and grow revenue.

Healthcare professionals improved efficiency and effectiveness in healthcare delivery when focusing on improving patient satisfaction scores and growing revenue, from cost savings to additional income (Robinson et al., 2020). Hospital leadership saved up to $30,000 per patient case when there was a decrease in patient wait time, and patient satisfaction improved due to the implementation of quality improvement measures such as LSS via failure mode effective analysis (FMEA), DMAIC, and PDSA (Godley & Jenkins, 2019). Successful lean management implementation involves healthcare leaders managing the processes, personnel involvement, and critical performance indicators (Prado-Prado et al., 2020). There were several phases to successful lean implementation

by healthcare leaders, such as the conceptual phase, to structure lean principles in healthcare, the applied phase of implementing the methodology, testing the method, the launching stage, consolidation, and the extension stage (Prado-Prado et al., 2020). Higher patient readmission rates per the Medicare hospital readmissions reduction program (MHRRP) contributed to high revenue growth (Chen et al., 2020). Improved health quality outcomes for patients increased patient satisfaction, which led to higher ED revenue growth.

Problems with Patient Satisfaction

Multiple issues contributed to low patient satisfaction scores, such as leadership failure to implement LSS, staffing shortages, and uncompensated care. Overcrowding in the ED, long patient wait-times, and patient leaving without being seen or being treated led to low patient satisfaction scores and loss of hospital revenue (Spencer et al., 2019). Physician burnout and insufficient nurse staffing also contributed to low patient satisfaction scores. Other problems leading to low patient satisfaction scores included patient registration time by staff, ease, and fees, and patients' impression of the physician based on time waiting, shared information, treatment, outcome, and courtesy shown by the physician and medical staff (Jain & Pareek, 2020). The comfort level of the ED waiting areas, restrooms, and the ED patient care area by healthcare leaders for patients were also significant when influencing patient satisfaction and growing revenue, such as cleanliness, availability of hydration and nourishment for family members or friends, sanitation, security, and technology (Jain & Pareek, 2020). Healthcare leadership

challenges with imaging and radiology, laboratory diagnostic processes, and pharmaceutical availability of medications also influenced patient satisfaction scores and revenue growth (Jain & Pareek, 2020).

As high as 90% of healthcare leaders in the hospital industry failed to implement LSS to improve patient satisfaction and grow revenue (Stelson et al., 2017) successfully. Higher readmission rates per MHRRP led to lower patient satisfaction scores, according to the HCAHPS (Chen et al., 2020). Hospital location and size contributed to staffing shortages for healthcare leaders, and staffing shortages positively correlated with low patient satisfaction scores (Winter et al., 2020). An increase in uncompensated patient care decreased patient satisfaction scores (Camilleri & Diebold, 2019). Hospital leaders could successfully implement LSS to improve patient satisfaction and grow revenue by minimizing readmission rates and addressing staffing shortages as best as possible.

Other reasons for low patient satisfaction scores for healthcare systems and leaders were physician burnout, physician frustration, patient challenges in comprehending medical knowledge, and low nurse staffing jeopardizing patient safety and quality of care. The increased use of electronic health records (EHR) contributed to high physician burnout leading to low patient satisfaction scores (Marmor et al., 2018). Many physicians over the years were used to handwritten charts and handwritten prescriptions. When physicians have to learn to type fast to record and administer everything electronically, it leads to physician burnout. Physician burnout led to increasing patient safety incidents, low professionalism, inferior quality of care, and low

patient satisfaction (Panagioti et al., 2018). Physicians needing extra time and effort to type everything electronically into the EHR system contributed to minimizing the availability of physician times for patients, creating longer patient wait times, overcrowding of the ED and ED-waiting areas, and patients left without being seen or treated, lower patient satisfaction scores, and loss of revenue. Hospital leadership could either train physicians on improving their electronic skills or implement an EHR system with built-in selection options where physicians do not have to physically type as much to concentrate on improving the quality of healthcare delivery to improve patient satisfaction and grow revenue.

Most patients were well educated in medical knowledge when arriving at the ED, but there were still some populations, like the vulnerable, people who were not computer savvy, or patients from various cultures who waited on the physician and medical staff to explain the medical problem and plan of care to them. These populations were not medically or scientifically savvy, and some had challenges understanding or following the physician or healthcare professional's speech or communication due to language or comprehension challenges. When a patient asked a question repetitively to understand the medical knowledge, he or she needs to become more familiar with, it leads to physician frustration, which contributed to lower patient satisfaction (Manzoor et al., 2019). Nurse staffing and hospital work environment contributed to patients' lack of confidence in healthcare and low patient satisfaction (Aiken et al., 2018). While the hospital's staffing issues with physician burnout and inadequate nurse staffing added to low patient

satisfaction scores, the patients' experience had a high correlation with the patient's satisfaction, recovery, and outcomes. It led to low patient satisfaction scores and loss of revenue.

Talaga (2019) stated that patient satisfaction also goes down when patients forego seeking out medical care, follow-up care, medical tests, medications, treatments and therapies, chronic illness treatment, and preventative care due to financial concerns or challenges. Talaga claimed that when patients put off medical care due to affordability, the medical condition or outcome worsens, making it more costly for the healthcare providers and patients in the long run as the medical condition is now more severe or worsens due to lack of necessary follow-up care, treatment, or therapy. Additionally, Talaga found that healthcare leaders centralized patient payment to make it more affordable, minimize confusion, and customize payment to the patient's ability to pay, which led to a positive patient experience and satisfaction and contributed to revenue growth. Improving patient experience to improve customer satisfaction increased patient volume, increased return visits for further services, encouraged patient referral to friends and families, improved patient satisfaction, and grew revenue.

Researchers found that patient satisfaction was particularly important as patient satisfaction scores positively correlated with the patient's experience, recovery, and outcomes. Ray et al. (2020) stated that diminishing patient satisfaction scores strongly correlated with patients reporting substantial discomfort, wait times, anxiety, pain, delay in recovery, and poor patient outcomes. Researchers found that long patient-wait times

and patient-flow times led to low patient satisfaction scores, low levels of healthcare delivery, overcrowding, loss of revenue, higher mortality rates, and critical clinical complications in hospital EDs across the nation.

Ways to Increase Patient Satisfaction

There were numerous strategies hospital leaders used to improve patient satisfaction scores to grow revenue, including consumer advertising, minimizing patient wait times, staff coordination, timely communication, social media presence, and creating a universal brand reputation. Additional methods to improve patient satisfaction scores were the role of up-to-date technology, patient insurance, patient experience, implementing a personal care plan for ED super-users, more detailed ED follow-up instructions and continuum of care, optimizing ED usage, improved communication, and reducing uncompensated care. Healthcare leaders improving physician education, patient complexity levels, patient volumes, physician schedules, hourly rounding, implementing quality improvement initiatives such as the split-flow throughput and physician in triage model, and Registered Nurse (RN) staffing were also significant factors in increasing patient satisfaction to grow revenue. Leadership minimizing patient wait times for test results, facility cleanliness, improving nursing services, medication availability, complaint handling, privacy, and confidentiality during the treatment, nurse staffing, staff behavior, hospital ratings, and support from paramedics were also significant factors in improving patient satisfaction leading to revenue growth.

Hospital leadership explored various avenues for improving patient satisfaction and growing revenue, such as consumer advertising to a broader geographic market to distant markets, increasing patient volumes by establishing trust, brand reputation, and awareness, and growing patient satisfaction (Huppertz et al., 2020). Hospitals with a Facebook presence in social media had high patient satisfaction scores (Richter & Kazley, 2020). Particular examples of such hospitals were the Mayo Clinic, the Cleveland Clinic, St. Jude's Hospital, and Children's National Hospital, where patients travel from various parts of the U.S. because they rely on the brand reputation of the hospital and willingly traveled distances for a higher quality of care (Huppertz et al., 2020). Long pediatric patient wait times with pediatric events in a particular culture(s) were a major reason for high levels of patient dissatisfaction from parents leading to a challenge in revenue growth (Sengupta et al., 2109). Factors contributing to the parent or caregiver's perception of patient satisfaction included improving strategies of timely communication, enhancing hospital protocol to improve staff coordination and operational performance, and innovative and upgraded technology for patient satisfaction and revenue growth (Sengupta et al., 2019).

Patient satisfaction involves the quality of healthcare experience and delivery through provider and patient-related factors. While consumer advertising and communication were vital factors in improving patient satisfaction, technology's role was also significant in improving healthcare quality and communication. Leadership using an interactive patient-provider software program (IPSP) improved patient satisfaction

scores, communication, and quality of care and minimized rates of complications (Gwam et al., 2018). While researchers tracking Press Ganey survey scores at a single healthcare institution from 2014 to 2017, the mean patient satisfaction scores improved from 89 to 97 after implementing the IPSP system where $p < .001$, and complication rates went down from 17.3% to 11.2%, where $p = .035$ (Gwam et al., 2018). Results of a single study were done by the researchers in one healthcare institution, but the results were significant enough to consider implementing new or innovative technology to improve patient satisfaction scores, the quality of care, and grow revenue.

Big data from EHR and radio-frequency identification (RFID) provided the ability for hospital leaders to compare physician and patient data to reevaluate physician performance toward patient satisfaction leading to revenue growth (Foster et al., 2018). The big data would also help support natural overcrowding issues directing hospital leaders to merge hospitals into more extensive healthcare networks, hire more physicians, or contract with local groups of physicians to support the increase in patient traffic to sustain improving patient satisfaction while growing revenue (Foster et al., 2018). As of 2017, Emergency Physician Management Networks (EPMNs) served about 6 million patients in 21 states at 171 sites (Foster et al., 2018). They were merging multi-hospital EDs via EPMNs to help meet the need for patient capacity and the aggregation of resources while improving patient satisfaction and growing revenue (Foster et al., 2018).

Patients had high levels of patient satisfaction when physicians spent more time with the patients and moved in and out of the patient's room less frequently and when

there was a communication network leader present, additionally assisting information exchange between the ED team and the patient (Stefanini et al., 2019). There was an increase in patient satisfaction scores when patient engagement increased, improving revenue growth. Patients reported higher patient satisfaction scores when the physician was near, put the physician's name on the whiteboard, and sat down rather than standing (Stefanini et al., 2019). Physicians or nurse leaders staying on an emergency call with the patient until the arrival of emergency services to bring the patient to the hospital improved patient satisfaction scores (García-Alfranca et al., 2018). A reduction in uncompensated patient care was another strategy to increase patient satisfaction scores and grow revenue for healthcare leaders (Camilleri & Diebold, 2019).

Healthcare professionals and physicians improving communication behaviors with patients, such as offering at least one non-medical gesture in addition to the medical advice, improved Press Ganey patient satisfaction scores (Finefrock et al., 2018). Physician behavior and communication correlate with improving patient satisfaction scores (Manzoor et al., 2019). Physician education in conveying respect and courtesy to patients and family members, therapeutic intervention, quality of care, and discharge instructions improved patient satisfaction scores and helped grow revenue (Gunalda et al., 2018). Foster et al. (2018) researched multiple physicians over multiple years in various facilities on monthly patient experience surveys, patient insurance information, patient visit details, physician daily schedules, and profiles for significant factors leading to physicians' operational performance contributing to patient satisfaction and revenue

growth. Foster et al. found that in a 4-year study with 1,079 physicians, at 84 hospitals, in 14 states, 600,000 shifts, and 10,615,879 patients had the factors of patient complexity levels and volume influencing the potential for revenue growth. Foster et al. stated that there was a high correlation between patient experience and potential revenue growth resulted in physicians who are usually preferred by the patients leading to higher patient satisfaction and revenue growth. Healthcare leaders sought medical and non-medical quality improvement initiatives to improve patient satisfaction scores and grow hospital revenue.

Patient satisfaction suffered when patients left the ED without getting medical care due to long patient wait times. Hospitals and healthcare leaders nationwide were experiencing high volumes of patients and low bed capacity due to the overcrowding dilemma. Spencer et al. (2019) claimed that implementing the provider-in-triage model and the split-flow triage process improved patients' flow through the ED from being treated to being discharged. Spencer et al. found that ED patient satisfaction scores improved when the door-to-provider time was reduced from 56 minutes to 13 minutes due to implementing quality improvement initiatives such as the split-flow process and the provider in the triage model. Additionally, Spencer et al. discovered the percentage of patients left without being treated or seen also went down from 12% to 1.62% increasing patient satisfaction scores with quality improvement initiatives. Healthcare leaders implementing the split-flow throughput and provider in triage models minimized ED

overcrowding, patiently wait times, and patients left without being treated or seen, improving patient satisfaction scores and growing revenue.

Improving RN staffing improved patient satisfaction by building patient confidence in care (Aiken et al., 2018). Triage nurses ordered radiology tests for broken bones before the physician visited the ED, minimizing patient suffering and wait time and improving patient satisfaction scores (Al Abri et al., 2020). Hourly rounding in the ED improved patient satisfaction scores from 52% to 73%, improved patient question responses from 63% to 81%, and staff attitude perception from 70% to 84% (Brosinski & Riddell, 2020).

Increasing patient satisfaction led to revenue growth by reducing patient wait times, improving facility cleanliness, nursing services, and medication availability, and minimizing patient wait times for test results (Jalem, 2020). Boateng (2020) also found that there was also an improvement in patient satisfaction, with the strongest correlation between patient involvement in making patient treatment decisions and treatment outcomes. When patients were included in the patient treatment decision, for example, when more than one treatment option(s) were available, the process of including the patient in the treatment plan let the patient know the healthcare provider cares about the patient, which improved the patient's road to recovery, increasing patient satisfaction scores and leading to revenue growth.

Other significant factors for healthcare leaders in improving patient satisfaction and growing revenue included nursing care, technical service, service format, privacy

during the treatment, physician services, and complaint handling (Boateng, 2020). About 3,258 patients in the U.S. returned the HCAHPS survey after being discharged from the hospital for about half of 2019, stating that there were significant relationships between the hospital's overall caring culture, patients' perception of the nurses' daily actions, and the overall patients' hospital experience (Wei et al., 2020). Valuable factors influencing patient satisfaction to grow revenue was the time physician spend with patients, nurse staffing numbers, healthcare staff behavior and communication, and paramedic healthcare support quality. The nurses' daily actions had the strongest correlation to favorable HCAHPS overall patient hospital ratings, improving patient satisfaction scores, whereby growing revenue (Wei et al., 2020).

Other ways of improving patient satisfaction included making a personal care plan and educating super-users of the ED with a continuing care plan to know where to go after the ED for follow-up care, including case managers, specialists' visits, and therapists (JEN, 2020). The continuum of care with ED super-users keeps them feeling that they were continually cared for and were being attended to medically across various facilities and providers, therefore, minimizing repetitive unnecessary visits to the ED, reducing ED efficiency, productivity, and profitability. Suppose the ED minimizes low-risk super-user visits; in that case, the ED would be available to attend to high-risk patients who critically need immediate medical attention and care, optimizing ED usage and the quality of healthcare delivery, thereby improving patient satisfaction and growing revenue.

According to Hartigan et al. (2018), organizational structural changes to the hospital to improve the physical environment regarding improving patient privacy and confidentiality enhanced patient satisfaction and grew revenue. Hartigan et al. stated that the ED's physical structure in hospitals was often chaotic or overcrowded, leading to minimal levels of patient privacy and confidentiality, where one patient could overhear the conversation in the next room with the patient even when separated by a curtain. Additionally, Hartigan et al. highlighted that the patients in the two rooms next to each other could have just arrived together from a car accident, be curious neighbors or friends, or have an ironic situation where one patient was going into labor while one had just lost a child. When the ED's physical structure separated patients by doors and walls instead of curtains, the patients experienced more privacy and confidentiality; they preferred to return to the facility or recommend the facility, which had higher levels of patient satisfaction, leading to revenue growth.

When patients had a positive ED experience, they provided high satisfaction scores. They were likely to recommend the hospital or ED to friends and family members, contributing to higher patient satisfaction and revenue growth. Healthcare quality improvement initiatives, both internally and externally to the hospital, were vital in improving patient satisfaction scores and growing revenue. Leadership in progressive healthcare organizations were increasing revenue by integrating healthcare delivery networks, standardizing care, and establishing partnerships (DeVore, 2020). Healthcare leaders could consider adopting opportunities to improve patient satisfaction scores and

grow revenue, such as incentive opportunities, including optimizing healthcare delivery models, homogenizing care, and developing new partnerships.

Transition

In the foundation of the study in Section, I highlighted the business and social change needed for the research study. In Section 1, I covered the background of the problem, the problem statement, the purpose statement, the nature of the study, the research question, and the interview questions. In Section 1, I also explained the conceptual framework, operational definitions, assumptions, limitations, delimitations, and the study's significance. During the comprehensive review of the professional literature, I included in Section 1, supporting, alternative, and contrasting theories throughout past research, signifying the need for the current research study and covering any research gaps for any future research studies.

In Section 2, I reiterated the purpose statement and explained the researcher's role, participants, research methodology and design, and the reasoning for population and sampling. I also included the ethical research standard applications, data collection instruments, technique, organization, analysis, and groundwork for the research study's reliability and validity. In Section 3, I included the applications for professional practice and the implications for social change with the presentation of the findings, the recommendation for action and future research, reflection, and the conclusion.

Section 2: The Project

In this section, I discuss the project section of the qualitative research study. I explain the data collection and analysis strategies while following ethical academic guidelines. I reiterate the purpose statement, present the roles of the participants and the researcher, and define the research design and methodology. In the project section, I also cover topics of population sampling techniques and ethical research guidelines. In Section 2, I include the data collection instruments and methodologies, data organization, and data analysis supporting the validity and reliability of the qualitative research study. I conclude this section with a transition and summary.

Purpose Statement

The purpose of this qualitative single-case design was to explore healthcare leader strategies in a hospital to improve ED patient satisfaction and grow revenue. The target population included five healthcare leaders in one hospital who were successful in improving ED patient satisfaction to increase revenue. The target population was from one hospital in the United States. The results of this study contributed to positive social change and benefitted community members by identifying strategies healthcare leaders used to deliver high-quality healthcare, leading to healthier communities and citizens.

Role of the Researcher

The researcher's role in the qualitative data collection process is to describe detailed, thick, and in-depth descriptions to address the study's purpose (Yin, 2018). Yin suggested that the researcher use the qualitative approach when trying to collect detailed

information from participants to answer a research question. I used the qualitative approach in collecting detailed information from the participants to answer a research question. I collected the data by interviewing the healthcare leaders, meeting a particular criterion, and asking them questions to gain an in-depth understanding of the strategies of leaders in a hospital ED, improving patient satisfaction scores and growing revenue. As the primary researcher and data collector, I used what and how questions in the interviews in a qualitative single descriptive case study research design to allow leaders to express their in-depth knowledge and experiences.

I have worked with healthcare leaders for over 15 years. While working with healthcare leaders, I have discovered the strong interest of healthcare leaders always trying to improve patient care and grow revenue. It would be beneficial to healthcare leaders to learn about how improving ED patient satisfaction scores could grow revenue. I have not worked as a frontline employee in the ED of the hospital for the past ten years and did not know any of the participants in my research study.

During the 1970s, the U.S. government established the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, from which the Belmont Report was derived (Miracle, 2016). The Belmont Report's core concepts were respect for persons, beneficence, and justice (Miracle, 2016). During business research, it was also imperative to use the institutional review board (IRB) with a panel of people who determined if a proposed research study was ethical according to the Belmont Report's principles (Miracle, 2016). It is my responsibility to warrant the beneficence,

justice, respect, and right to privacy of the research participants. In my role as the researcher, I followed the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research from the Belmont Report, such as the respect for persons, justice, and beneficence through the data collection and analysis process. I acquired written interviewee consent with an interview protocol, and I obtained Walden University IRB approval before contacting the interviewees for the interview process for data collection. I used an interview protocol to explain the purpose and topic of the research study and outlined the interview questions ahead of time so the interviewees could be informed and think about the interview process thoroughly before deciding to participate in the research study.

A researcher would always have to defend their research against the bias of validating the data's trustworthiness. A researcher may think that getting trustworthy participants would yield trustworthy data, but it may be significant to consider that some knowledgeable people needed to be better with the interview process and may have missed mentioning something due to being nervous or recorded. Experienced researchers suggested that data triangulation increased the trustworthiness of the data, such as debriefing, member checking, and document review (Lauri et al., 2020). There were also some research suggestions that bias training would enlighten the researcher to recognize unconscious judgments (Lauri et al., 2020). I used methodological triangulation, debriefing, use of data saturation, and member checking to mitigate researcher and participant bias. Additionally, to mitigate bias, I contacted a senior leader in the

organization, who contacted another leader in the organization who provided me with contact information for the healthcare leaders meeting my interviewee guidelines and requirements.

The strategy for collecting qualitative data in a qualitative case study involved achieving data saturation. Data saturation is when data is collected and analyzed by the researcher until no new data or analysis exists (Saunders et al., 2018). Saunders et al. claimed that the rigor of a research study depends on the researcher's ability to reach saturation. Saunders et al. stated that the four different saturation models are theoretical, inductive thematic, a priori thematic, and the data saturation model (Saunders et al., 2018). I used the data saturation model, where the new data repeated the previous data's expression. I also used member checking, where the data and analysis were shared to verify the data's accuracy with the key informants. Tess et al. (2018) stated that member-checking methods confirmed the interpretation of the interview transcripts and engaged the participants in the interpretation process. I additionally used the method of member checking to add to the validity of my data collection and analysis.

I chose the interview process and document review as my approach to the data collection process because conducting interviews allowed me to gain an in-depth view of the participant's experiences and opinions. Yin (2018) stated that choosing to conduct interviews allows the researcher to answer how and why questions. Therefore, Hildenbrand and Alderfer (2019) stated that interviews are relatively economical and efficient, can be conducted in diverse settings, and are efficiently accessible through

various methods. Furthermore, Hildenbrand and Alderfer explained that selecting the assessment tool of performing interviews as the research method for collecting data allowed the interviewee to offer in-depth knowledge and experience rather than a quick structured survey with no room to elaborate. As a result, I chose a document review and the interview protocol with open-ended questions that allow the interviewee to elaborate and provide rich, thick, and in-depth descriptions of knowledge and experiences. The interviews also allowed me the opportunity of collecting verbal and non-verbal cues creating a detailed and thorough data collection and analysis. Mukumbang et al. (2019) claimed that a document review is when a researcher gathers background information to provide detailed descriptions of evidence on a topic or to explain the process's effectiveness. I chose the document reviews process to provide supporting evidence to the data collected from the interviews for methodological triangulation.

Participants

The study participant's eligibility criteria were that they had at least 1 year of employment, and experience in a healthcare leadership position, successfully improving patient satisfaction scores and growing revenue in the hospital ED. The participants could be of any race, gender, ethnicity, or educational background. Participants could be middle managers, and leaders, in healthcare supervisory roles.

The strategy I used to gain access to participants was by first contacting healthcare leaders I knew already through social media, such as Facebook (Meta) and LinkedIn, who met the criteria with information about my research study. Once he or she

agreed to participate, I sent an e-mail with the interview consent form to obtain consent before scheduling the interview. The interview was scheduled according to the optimal time for the participant.

I had multiple strategies for establishing a professional working relationship with the participants to establish trustworthiness and confidentiality, such as having multiple contacts with the participants. Daniel (2018) defined trustworthiness by demonstrating that the research findings align with the participant's views without including any researcher bias or influence. For example, I first made an introductory call to the research participants inviting them to participate in the research study and answer any questions about the study or participation. Once they responded with the interest and availability to participate, I sent an e-mail with the informed consent document and gained written permission before scheduling the interview. I scheduled the interview and began the interview. I made myself available for questions or concerns anytime to build transparency and trustworthiness. If necessary, after the interview process, I followed up and debriefed for member checking to confirm data interpretation and analysis aligned with shared information from the participants for reliability and validity.

Research Method and Design

The research method and design were vital in designing and performing any research study. The three possible research methods are qualitative, quantitative, or mixed-method research method (Cassell et al., 2018). I chose the qualitative research method, with a single descriptive case study design, as my research method and design

because it provided me with thick, rich, in-depth descriptions of my research question and purpose.

Research Method

Researchers may choose from any of the research methods that were in the best alignment with providing evidence to the overarching research question, purpose, and problem. Qualitative, quantitative, and mixed-methods research are the three possible considerations for the research methods for particular situations considering all resources and limitations (Cassell et al., 2018). Yin (2018) stated that a qualitative approach to answer the research question by collecting rich, thick, and in-depth information to answer the how and why questions for the study. Additionally, Ullrich et al. (2020) recommends that the qualitative research method is used in healthcare research to provide an in-depth explanation of the perception, behaviors, and experiences of healthcare professionals, patients, and everyone else. Therefore, I used the qualitative research method with a single descriptive case study design to describe thick, rich, and in-depth explanations of the purpose, problem, and overarching research question of the study.

I did not select the quantitative or mixed-methods research method. I chose the qualitative research method as I am interested in uncovering rich, thick, and in-depth explanations of the participant's experiences, behaviors, and perceptions of the overarching research question, purpose, and business problem. The purpose of quantitative research is to provide systematic and empirical research through statistical analysis of numerical data answer to compare correlations, rates, incidence, or prevalence

through surveys, intervention, case-control, or cohort studies (Basias & Pollalis, 2018; Bruce et al., 2018; Zyphur & Pierides, 2020). I was more interested in the breadth and depth of valuable insight into the knowledge and experiences of my participants through a relaxed interview setting rather than the correlational strength or direction between variables, rates, or incidence; therefore, I did not choose the quantitative research method.

Mixed research methods are used by researchers when a single qualitative or quantitative research method is not sufficient in answering the overarching research question or problem (Dopp et al., 2019; Şahin & Öztürk, 2019). While some researchers supported that mixed-methods research made up for the strengths and weaknesses of solely conducting a qualitative or quantitative research study, there are limitations to the depth of the resources in a mixed-methods research study (Şahin & Öztürk, 2019).

I did not gather and analyze quantitative statistical data as it would not provide me with in-depth, unique detailed descriptions of the participant's knowledge and real-world experiences in the hospital setting for improving patient satisfaction and growing revenue. Krawczyk et al. (2019) stated that qualitative research provided the opportunity for enhanced credibility, transferability, dependability, and confirmability. Therefore, I used the qualitative research method to enhance the rigor, reliability, and validity of the research study through in-depth data collection and analysis, in alignment with my overarching research question, problem, and purpose of the study.

Research Design

I considered three research designs in alignment with my research question, problem, and purpose. The three research designs that I considered were case study, ethnography, and phenomenology. A single descriptive case study research design is when a research study is described as the actual real-life, current real-world situation, with knowledge and experience using the least number of participants to collect rich, thick, in-depth data, which is the (Cassell et al., 2018; Yin, 2018). I did not choose the multiple case study designs to offer information over a longer time and space. I chose the single descriptive case study design for the subject hospital to do a detailed review of one organization. The single case study research design offered a unique application to focus on a particular case or unit of analysis, such as a process or protocol (Durdella, 2019). Therefore, I used the case study research design over other research designs using the qualitative research method to uncover detailed, thick, in-depth descriptions of healthcare leaders' knowledge and experiences on improving patient satisfaction and growing revenue.

After considering the ethnographical and phenomenological designs, I chose the single descriptive case study design. In an ethnographical research design, the researcher spends much time in the setting observing and studying a group or culture (Durdella, 2019; Vindrola-Padros & Vindrola-Padros, 2018). Durdella suggested that the study's goals and resources guide the researcher from becoming the participant-observer transitioning into the complete observer and then becoming the complete participant as an

immersive experience in an ethnographical design research study. There was also the risk of reactivity influencing ethnographical data collection when observing the participant, whether covert or disclosed (Coffey, 2018; Gaudet & Robert, 2018). I did not want to make my participants feel distracted in performing their professional tasks or even altering them because I observed them as a researcher in a healthcare setting. I could get more in-depth information in a comfortable setting of an interview from my participants, so I chose the case study design over the ethnographical design. Fieldwork or daily functioning with the participants to understand them better was not the goal or possibility for my study, so I did not choose the ethnographical design as my research study design in the qualitative study for healthcare leaders improving patient satisfaction scores and growing revenue.

When the researcher looks for personal meanings of lived experiences by engaging with the participants for a prolonged amount of time to interpret the research patterns and findings, it is called the phenomenological design of qualitative research (Konecki, 2019; McGregor, 2018). The foundational elements of a phenomenological design research study are based on the participants' lived experience, relying solely on one's worldview, the process of reduction was used in the analysis, and the goal of the research is not on explaining but instead describing a phenomenon (Gaudet & Robert, 2018). During a phenomenological design interview, the researcher would concentrate on the participants' lived experiences, perceptions, opinions, feelings, and understandings over other evidence or interpretations while the researcher remains neutral (Flick, 2018).

Since my research aligned more with collecting rich, thick, in-depth data on healthcare leaders' activities, processes, and programs improving patient satisfaction and growing revenue, I chose the case study design and not the phenomenological design of studying lived experiences for an extended time in a healthcare setting of the hospital. Using a qualitative single descriptive case study research design enabled me to use interviews to allow leaders to express their in-depth knowledge and experiences.

A researcher would reach saturation when there was no new data or emerging themes from the additional participant(s). The gold standard for any qualitative research is reaching saturation, where the data collection becomes redundant, and no new themes or data are revealed; if the sample size is too small, saturation may not occur, and if it is too large, it may challenge the depth of information collected (Saunders & Townsend, 2018). The researcher should use saturation as a guide to commence sampling (Schreier, 2018). The sampling process must be flexible as the researcher goes along with the research and cannot be set or fixed from the beginning because the researcher may not always know precisely when he or she has reached saturation, and no new ideas, data, or insight appeared (Schreier, 2018). Saturation could also be defined as when no further coding could occur (Lowe et al., 2018). When the researcher reached saturation in the data, coding, and theming, it added to the data collection and analysis processes (Lowe et al., 2018). I used the emerging themes from analyzing the literature review, document review, and interview data from the participants to achieve saturation in my data collection and analysis process. I used a single descriptive case study research design

with a qualitative research method to describe in-depth a unique problem of leadership developing and implementing strategies in the hospital setting for improving ED patient satisfaction and growing revenue.

Population and Sampling

In this qualitative research single case study design, the participants included five healthcare leaders in one hospital with at least 1 year of experience and knowledge of using strategies to improve ED patient satisfaction and successfully grow revenue. I used the purposeful, a non-probability non-random sampling method, to select participants who could share rich, detailed experiences and knowledge to support the overarching business question and in-depth information about the business purpose and problem. Moser and Korstjens (2018) stated that the researcher makes a well-informed decision of the best informative potential sample participants as a sampling strategy in purposeful sampling. The researcher used purposeful sampling to focus on responding to the objectivity of the research and the selection criteria of the population for insight into the significant knowledge and experience and an in-depth study of a rich case (Campbell et al., 2020; Mathews et al., 2021; Yin, 2018). Moser and Korstjens also stated that researchers used sample planning, strategies, and comparisons to select the appropriate sampling strategy to ensure rich data collection with purposeful sampling over other sampling methods to select key participants to unveil unique insight and knowledge about the research problem. Other types of convenience sampling other than purposeful sampling are snowball, volunteer, and theoretical sampling (Gill, 2020). Grant et al.

(2020) stated that purposeful sampling is used in qualitative research to achieve data saturation, with no new information referring to the research question. Grant et al. claimed that theoretical sampling aligned with providing rich, thick information building on previous analytical information in grounded theory studies. I did not use theoretical sampling because I was doing a qualitative single case study instead of a phenomenological, grounded theory study. Grant et al. explained that volunteer sampling is when participants respond to participate in a research study from an advertisement, and they could be from any facility or setting. Since I selected participants and gained IRB approval from hospital facilities, I did not use the volunteer sampling method. I used purposeful sampling in this single case study. I selected key healthcare leaders in the hospital industry with a particular requirement of having at least one year of experience and knowledge to collect thick, rich, in-depth information with breadth and depth of strategies used to improve patient satisfaction scores and grow hospital revenue successfully.

The participants had a minimum of 1 year of experience and knowledge of healthcare leadership, successfully implementing strategies to improve patient satisfaction scores in the hospital industry and grow hospital revenue. The study participant's eligibility criteria were that they had at least 1 year of employment, and experience in a healthcare leadership position, successfully improving patient satisfaction scores and growing revenue in the hospital ED. The location of the target population was hospitals in the U.S.

Researchers suggested that the semistructured interview setting should be conducted where the participants were most comfortable (Ahmed et al., 2020). The interview setting took place virtually where it was most comfortable for the participant, and it was their place of work, home, or any other comfortable place. The participant's role was that they had a minimum of 1 year of experience in a healthcare leadership position of successfully improving patient satisfaction scores and growing revenue in the hospital ED. I used purposeful sampling to sample healthcare leaders from hospitals who were part of a hierarchical healthcare leadership position, influencing implementing strategies to improve patient satisfaction and grow revenue from the U.S. The participants needed to meet the selection criteria, through experience and knowledge, about the research question, problem, and purpose of the research study.

The strategy I used to gain access to participants was by first contacting healthcare leaders I knew already through social media, such as Facebook (Meta) and LinkedIn, who met the criteria with information about my research study. Once he or she agreed to participate, I sent an e-mail with the interview consent form to obtain consent before scheduling the interview. The interview was scheduled according to the optimal time for the participant.

Data saturation was accomplished by adaptively analyzing rich, think, and in-depth data (Gill, 2020). The participants' final inclusion was guided by adaptively accomplishing data saturation. For qualitative research studies, data collection for a particular sample size needed to be broadly defined first and then became more flexible

during data collection of rich information consistent with methodological triangulation (Moser & Korstjens, 2018). Since qualitative research does not have to be generalizable, like quantitative research, sample sizes for qualitative research are much smaller than quantitative research (Gill, 2020). The data collection sample size was different for different qualitative studies to reach data saturation and was best aligned with the overarching research question, problem statement, and the purpose of the research study (Moser & Korstjens, 2018).

A reference to previous research studies did allow researchers to estimate a participant sample size by achieving data saturation through guidelines for validating a participant sample size (Gill, 2020; Sim et al., 2018). After analyzing 10 participant interviews, some researchers supported that they reached the saturation criteria after three participants, where no new themes emerged after additional interviews (Sim et al., 2018). When performing a single case study design in a qualitative research method, a minimum participant sample size of three to five was used as a numeric guideline (Yin, 2018). When the sample participants provided the researcher with high-quality, in-depth, rich, thick data, fewer participants were needed to reach data saturation (Gill, 2020). I purposefully selected a population sample of five participants from not-for-profit hospitals throughout the U.S.

Data saturation was attained by collecting and analyzing data from various sources where no new information was uncovered (Gill, 2020). A high-quality, trustworthy qualitative research study included dependability, credibility, transferability,

and confirmability to ensure rigor (Nyirenda et al., 2020). Credibility aligned the results with reality and was established by triangulation, saturation, rapport building, prolonged engagement, member checking, inclusive coding rather than reduced coding, and iterative questioning (Nyirenda et al., 2020). I ensured credibility by performing semistructured interviews with healthcare leaders, building rapport, analyzing organizational documents and financial and process documents, and ensuring methodological triangulation by reviewing the literature thoroughly for data saturation. I used purposeful sampling to achieve data saturation for the optimal sample size selection, where no new information was offered to answer the overarching research question, and the same information offered by each participant started repeating. I had multiple strategies for establishing a professional working relationship with the participants to establish trustworthiness and confidentiality, such as having multiple contacts with the participants.

Ethical Research

The informed consent process lets the participant know what to expect during the interview, the time, place, duration, and the topics to help jog their memory, prepare, and choose to participate or not. Some researchers and research procedures used verbal consent that was recorded, and others something in written form, and special studies would require both to confirm the participant did not change his or her mind. Once the participants volunteered with interest and availability to participate, I sent an e-mail with the informed consent document and gained written permission before scheduling the interview. The informed consent process allowed the participant to make an informed

decision to participate and was the foundation of ethical research (Chapman et al., 2020). Participant competency and the communication level of the participant and the researcher were essential components to getting the most out of the informed consent process (Bhimani et al., 2018). The informed consent informed the participant of the risks, benefits, goals, requirements, conflict of interest, the voluntary process, and funding to allow the participant to decide to participate (Chapman et al., 2020).

The most important part of the informed consent process was that the participant knew that participation was a choice, and they could always choose to or not to participate or even choose to remove themselves from participating in the research at any time for any reason. Gaining informed consent protects participants from harm, including avoiding deception, protecting the privacy and confidentiality of participants, taking special precautions to protect especially vulnerable groups, and selecting participants equitably (Yin, 2018). The IRB approved the formal proposal and human subject research before proceeding (Yin, 2018). There were additional guidelines through professional research and ethics associations, including individual universities' requirements (Yin, 2018). I followed all of the rules and regulations of Walden University and the IRB before proceeding with the data collection stage of my study to make sure I was compliant with all ethical considerations of the research study.

The participant did always have the option to withdraw from the study at any time for any reason. I explained to the participant that the decision to participate in the study was entirely voluntary. The participant may have refrained from answering a question at

any time without any penalty. I informed the participants that they might withdraw from the study at any point in time by letting me know they wished to withdraw; nothing would be held against that decision. The participant always had the right to participate or withdraw from the research study (Hammer, 2017). The participant was aware that if they were uncomfortable answering a question, they would have the right to skip it; and that participant data could be incomplete or missing. If the participant felt uncomfortable at any time completing the interview, they had the right to stop and no longer participate. The IRBs were essential for the ethical, safe, and standardized conduct of human participant research to ensure the welfare and rights of the research participants (Lapid et al., 2019).

The three required informed consent and consent capacities were participants voluntarily chose to participate; they were fully informed and competent to decide (Lapid et al., 2019). The new Right to Try act was a federal law allowing particular patients with life-threatening diseases to access trial drugs that have passed phase one trials and were too early to tell if they worked and did not require IRB review, for example (Lapid et al., 2019). The IRB's primary focus was to protect vulnerable participants from exploitation or protect human participants in research. The IRB was concerned with the psychological or psychosocial effects and support offered to the participant during the researcher's data collection process. It was up to the researcher to let IRB know of the protocols to protect the participant during the participation in the research study. The participant's well-being was of the highest importance to the researcher.

There were no incentives offered for participating financially. The incentive was knowledge-based, where I shared my research findings with the participants and the organization in summary. There was an incentive for the healthcare industry to learn of the strategies healthcare leaders use to improve patient satisfaction and grow hospital revenue and help to improve the quality of healthcare delivery in the community.

The U.S. government established the National Commission for the Protection of Human Subjects of Biomedical and Behavioral in 1970 when the Belmont Report was derived (Miracle, 2016). The core concepts for the Belmont Report were respect for persons, justice, and beneficence (Miracle, 2016). The IRB also determined if the proposal of the research study was ethical and in alignment with the Belmont Report's Principles (Miracle, 2016). The researcher warranted the respect, justice, beneficence, and right to privacy of the research participants (Miracle, 2016). In my role as the researcher, I followed the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research from the Belmont Report, such as the respect for persons, justice, and beneficence through the data collection and analysis process, with the interview protocol.

I acquired written interviewee consent with an interview protocol, and I obtained Walden University IRB approval before contacting the interviewees for the interview process for data collection. I used an interview protocol, explained the purpose and topic of the research study, outlining the interview questions ahead of time so the interviewees

could be informed and think about the interview process thoroughly before deciding to participate in the research study.

I will store the data securely for 5 years after CAO approval to protect the confidentiality of the participants due to university requirements. The data will be destroyed after that to ensure the future confidentiality of the participants and peace of mind. All electronic data was stored in a password-protected hard drive, and all paper documents did go along with the hard drive and will be locked away in a safe for 5 years. My final doctoral study's Walden University's IRB approval number was 01-06-23-0343749.

Research participants should be given information about recommendations and procedures for security and privacy and to safeguard anonymity and confidentiality (Strand et al., 2020). One way to maintain confidentiality would be by a self-selected pseudonym (Strand et al., 2020). I did not use participant names in any of my documents. Instead, I selected a pseudonym or asked the participant to choose an alias to allow the participant confidentiality in participating in the research study. I also assigned an alphanumeric to the organization's name to protect the confidentiality of the organization.

Data Collection Instruments

I conducted semistructured interviews as my primary data collection instrument and document review as my secondary data collection instrument for a qualitative single case study to gain in-depth information. Examples of documents I reviewed included publicly available documents shared by the participants, publicly available Press Ganey

patient satisfaction scores, and HCAHPS scores. They may be online and hard copies as they were also kept in the hospital for the records and any other publicly available relevant document the participant wished to share. All the documents I reviewed supported improving patient satisfaction scores and growing hospital revenue. Researchers often used interview questions to collect detailed information from participants in a qualitative research study (Yin, 2018).

The strategy I used to gain access to participants was by first contacting healthcare leaders I knew already through social media, such as Facebook (Meta) and LinkedIn, who met the criteria with information about my research study. Once he or she agreed to participate, I sent an e-mail with the interview consent form to obtain consent before scheduling the interview. The interview was scheduled according to the optimal time for the participant. I asked the participants to please reply via e-mail with the words "I consent" for the informed consent for 18 years and older before they start the interview process. Researchers were advised to move forward with the interviews only after IRB approval (Lapid et al., 2019). I scheduled the interviews only after IRB approval in compliance with all IRB regulations and protocols. While I asked interview questions, I needed to offer the participant probing questions to gain further in-depth knowledge on a topic, especially if I noticed they were becoming nervous or anxious.

The participant always had a right to choose to participate or decline to participate in a research study under the ethical standard of autonomy (Hammer, 2017). If at any time the participant was uncomfortable answering a question, he or she had the right to

skip the question, and the participant data would be filed as incomplete or missing. According to Hammer, missing data could be adjusted or eliminated by the researcher, but the participant always has the right to skip questions if he or she feels uncomfortable. Should a participant become uncomfortable at any time, he or she had the right to stop answering any and all questions and would no longer participate for any reason, simply by informing the researcher. The participants were informed that he or they might withdraw from the study at any time for any reason just by informing me during any point of the interview process or the interview.

To enhance the reliability and validity of the data collection process, I also performed member checking following the interview via e-mail to confirm the accuracy of the interpretation of the data collected to establish trustworthiness and credibility. I performed member checking by sending an e-mail of my interpretation of the data to the participants and waiting for a reply or confirmation of the accuracy of the data. I needed to call them and remind them to check their e-mail when there was a significant delay in the response. Written proof via e-mail should support and validate the member-checking process. The rigor and credibility of the research were enhanced by using purposeful sampling methods (Forero et al., 2018). I only used participants who have had at least 1 year of experience in successfully improving patient satisfaction scores and growing revenue in a hospital setting through continual engagement to enhance credibility. Researchers achieved triangulation with member checking, document review, and debriefing to increase the trustworthiness of the data (Forero et al., 2018; Lauri et al.,

2020). I used member checking from the interviews and document review to achieve methodological triangulation to support the trustworthiness of the data. Pseudonyms were used throughout the data collection process to allow for the privacy of the participant and the protection of the organization's information.

Data Collection Technique

Case study research often involves interview questions and document reviews as forms of data collection. Performing a pilot study could give the researcher an idea about sufficient participants for conducting a qualitative research case study (Forero et al., 2018). I have performed a pilot study in a previous qualitative analysis class in my DBA program to give me an idea about sufficient participants in my dissertation. I did not do a pilot study after IRB approval. In a single descriptive case study research design, the least number of participants was used to establish saturation and collect thick, rich, in-depth data for an actual real-life situation (Cassell et al., 2018; Yin, 2018). I was using a single descriptive case study design as my data collection technique in conducting one-to-one interviews at a comfortable time and location for the participant to gather the optimal information for my research data.

The strategy I used to gain access to participants was by first contacting healthcare leaders through social media, such as Facebook (Meta) and LinkedIn, who met the criteria with information about my research study. Once he or she agreed to participate, I sent an e-mail with the interview consent form to obtain consent before scheduling the interview. The interviews were conducted at a time and location that was

comfortable for the participant, and I asked the participants to provide any publicly available relevant documents associated with the responses to the interviews.

After the interview, I performed member checking to verify the interpretation of the information in the data to add to the credibility of the data. The methods of member checking confirmed the interpretation of the interview transcripts and engaged the participants in the interpretation process (Tess et al., 2018). I sent an e-mail to each participant with my interpretation of the data for member checking. The participants affirmed the accuracy of my interpretation of the data or offered comments on my interpretation by replying via e-mail for the validity, rigor, and credibility of the interpretation of the data. The integrity and precise interpretation of the data were important through the data analysis of the data and reconfirming everything with the participants to help members check and confirm the accuracy of the data and the interpretations (Nyirenda et al., 2020). I also performed a document review to add to the rigor, validity, and reliability of the data and analysis. The document review included all publicly available documents shared with me by the participants that were relevant to my research study. All the information was available publicly online, such as financial audit documents. The documents that I used were publicly available Press Ganey Scores, financial audit information, HCAHPS scores, and any relevant documents to my research question, purpose, and study. The document review provided additional supportive evidence to the findings of the data interpretation of the interviews.

There are advantages and disadvantages to open-ended semistructured interview questions and document reviews in a qualitative research study. An advantage of using open-ended interview questions was to allow the participant to include information freely as needed to the data, without restrictions or limitations (Cassell et al., 2018). An advantage of the document review was to add to the rigor, credibility, reliability, and validity of the data (Nyirenda et al., 2020). A disadvantage to the open-ended semistructured interview questions is that they may give too much room for the participant to go off on tangents, and they may need a lead, follow-up question, or prompt to return to the original interview question. The disadvantage to using document reviews was that sometimes there were restrictions as to who could have access to which document in the organization and out of the organization, and it may take additional time to access certain documents (Cassell et al., 2018; Ross & Zaidi, 2019; Theofanidis & Fountouki, 2018). While member checking was an advantage to confirm the data collected in the interview, it also consumed additional time, as compared to a survey or closed-ended questions data collection technique in an interview.

Data Organization Technique

Data collection instruments in a qualitative case study include participant or direct observations, audiovisual material, the use of documents or archival records, physical artifact observations, interviews, and a mixture of these instruments (Yin, 2018). The data collected were organized by labeling and cataloging by alphanumeric pseudonyms for the interview participants and in alphabetical order for the documents. Electronically, the

data organization included the color-coding emerging themes in the comments section of the transcripts in Microsoft Word. NVivo software helps researchers perform the thematic analysis of qualitative data (Thumboo et al., 2018). I used the NVivo software for my thematic analysis of the data from the interviews, which was voice recorded and transcribed verbatim. I first transcribed the interview in Microsoft Word, and then I uploaded those transcripts into NVivo. Each transcript was labeled according to my alphanumeric pseudonyms. Throughout the whole process of data collection and analysis, I did my best to ensure there was as minimal researcher bias as possible.

Participants should be assured confidentiality, especially when discussing controversial topics, which may jeopardize their work status should everyone come to know the shared information. Research participants should be given information about recommendations and procedures for security and privacy and to safeguard anonymity and confidentiality (Strand et al., 2020). One way to maintain confidentiality was by a self-selected pseudonym (Strand et al., 2020). I selected a pseudonym or asked the participant to choose an alias pseudonym to allow the participant confidentiality in participating in the research study. Participants had the right to privacy and felt protected when sharing confidential information (Esther et al., 2021). I kept track of data collected electronically through scanned documents, electronic recordings, transcripts, and interpretation of the interviews. I also used reflective journaling to add to the methodological triangulation and add rigor to my research study. I scanned any documents electronically, and they allowed me to scan what I received, as it was easier to

retrieve. I will store the paper document copies in the safe, locked up, and destroy them after five years. The interpretation of the data and member checking information also will be stored electronically and saved on a hard drive that is password protected for 5 years, where it will securely locked-up in a safe in a hidden area in a locked room of my residence. After 5 years, everything will be destroyed.

Data Analysis

Creswell and Poth (2018) discussed the data analysis spiral as the researcher collecting data, managing, and organizing the data, reading emergent ideas, describing, and classifying codes into themes, developing, and analyzing interpretations, representing the findings, and accounting for the findings. I used all of the steps in the data analysis spiral, especially describing, and classifying codes into themes, for my data analysis. There were four types of triangulations for case study research by Denzin in 1989 that could be used in analyzing the data in a qualitative case study, which were methodological, investigator, data, and theoretical triangulation (Denzin, 1989; Fusch et al., 2018). The main purpose of all or any triangulation was to support the reliability and validity of the informational data and minimize bias (Fusch et al., 2018). Correlated data from different methods of data collection, such as interviews, documents, and literature, contributed to the methodological triangulation of the data (Fusch et al., 2018). I used interview data, documents offered by the participants, any documents supporting my research, and all literature supporting my research findings in a single qualitative case study for methodological triangulation and member checking.

In data triangulation, there was an inter-relating of time, people, and space that was ongoing (Fusch et al., 2018). I did not use data triangulation as it was not relevant to the purpose of my single case study. Investigator triangulation stemmed from the collection of data from multiple researchers (Fusch et al., 2018). I did not use any other researcher other than myself in the data collection and analysis process, so this type of triangulation does not apply to my research purpose or design. Theory triangulation involves correlating multiple theories (Fusch et al., 2018). Comparing multiple theories did not serve the purpose, design, or research question, so I did not apply it.

The sequential process for the data analysis that I did use for my study was as follows:

a) First, the collected data was analyzed and color-coded for possible emerging themes on Microsoft Word.
b) The files from the interview transcripts were pasted into NVivo verbatim.
c) NVivo's nodes and coding feature were used for emerging codes, and those codes were categorized into nodes with different color labels, if possible.
d) Emerging codes were grouped and categorized.
e) Similar categories were giving rise to emerging themes.
f) Emerging themes were giving rise to overarching themes.
g) Overarching themes were compared against literature and relevant organizational documents while combining GST and DMAIC through the composite conceptual framework to provide a lens for an in-depth

understanding of the strategies the hospital leaders use to improve ED patient satisfaction and grow revenue.

h) Reported all patterns, trends, findings, and conclusions.

There were five stages to analyzing research case study data such as compilation, disassembling, reassembling, interpreting, and concluding (Yin, 2018). I used Yin's 5-step approach to data analysis. I performed the compilation through Microsoft Word. NVivo is a user-friendly software application that helps with coding, theming, and thematic analyses (Castleberry & Nolen, 2018). I used NVivo against the coding I did do before in Microsoft Word to confirm the coding, theming, and thematic analysis of overarching themes with the disassembling and reassembling stages. When I coded the transcripts, the emerging themes for the thematic analysis transpired. Member checking and additional supportive existing literature further supported the data-driven process of identifying emerging themes from the data directly to ensure methodological triangulation. I then interpreted the findings using the macro lens of GST and the micro lens of DMAIC to help make evidence-based conclusions of leadership improving ED patient satisfaction and growing hospital revenue. I focused on key overarching themes from the interview data analysis in correlation with literature and relevant document review for methodological triangulation with the composite lens of GST and DMAIC to ensure the validity and reliability of the interpretation, analysis, and conclusions of the data findings.

Reliability and Validity

The repeatability of measurements, including the results of the analysis at various times being similar, was called reliability (Kýlýnç & Fırat, 2017). The scope and aim of the research and the accuracy of the measurement, and the relevance of the value being measured were called validity (Kýlýnç & Fırat, 2017). The concept of reliability and validity were interconnected to one. While both validity and reliability were significant in qualitative, quantitative, and mixed-methods research, the voluntary participant's sincere response was necessary. Other tools assisting in verifying reliability and validity during data collection include using a recorder to prevent data loss, checking on data consistency, and description of the researcher's role (Kýlýnç & Fırat, 2017). The voluntariness of the participant also measured the validity of the qualitative analysis. I used two types of recorders during the interview process to prevent data loss. I checked on data consistency and saturation and verified the validity and reliability of the data during the data collection and analysis process.

Reliability

Dependability

Dependability is the degree to which the study could be replicated, where more than one person agrees to the results and findings, as in member checking (Nyirenda et al., 2020). Reliability in quantitative research is referred to as dependability in qualitative research (DBA rubric, 2020). Various qualitative procedures could contribute to the dependability or reliability of a research study, such as member checking for transcript

review, data interpretation, or a pilot test study (DBA rubric, 2020). Reliability and dependability were about standardizing the research so the results were consistent if retested in the same conditions or the research was performed again by someone else in the same conditions and protocols (Taylor, 2018). Even if the data were reliable and the research repeatable, it needed to be more valid. To enhance the reliability and validity of the data collection process, I also performed member checking following the interview via e-mail to confirm the accuracy of the interpretation of the data collected to establish trustworthiness and credibility. I performed member checking by sending an e-mail of my interpretation of the data to the participants and waiting for a reply or confirmation of the accuracy of the data. I needed to call them and remind them to check their e-mail if there was a significant delay in the response. Written proof via e-mail supported and validated the member-checking process. I used member checking to ensure the data analysis and interpretation, contributing to the reliability and dependability of my qualitative research method of the study.

Validity

A high quality trustworthy qualitative research study included dependability, credibility, transferability, and confirmability to ensure rigor (Nyirenda et al., 2020). Validity in qualitative research was aligned with credibility, transferability, conformability, and data saturation (DBA rubric, 2020). Researchers assessed validity in qualitative research by looking at the construction of the data and the trustworthiness of the data regarding internal and external validity. The definition of internal validity was

that it measured the results of the study deriving from the factors suggested by the researcher or other contradictory variables (Taylor, 2018). In qualitative research, external validity suggested that the researcher was indicative. Given a similar situation or characteristics, the findings were likely to be valid (Cobern & Adams, 2020). Validity could be tested using face validity as in measuring or testing effectively, concurrent validity, comparing the new measure to pre-existing measures, and ecological validity, where results from controlled research would occur in a naturally occurring environment (Taylor, 2018).

I ensured the validity of my qualitative research through credibility by member checking, data saturation, confirmability, and transferability aligned with internal validity through methodological triangulation. There were four types of triangulations for case study research, as noted by Denzin in 1989, that could be used in analyzing the data in a qualitative case study (Denzin, 1989; Fusch et al., 2018). These types of triangulation were methodological, investigator, data, and theoretical triangulation (Denzin, 1989; Fusch et al., 2018). The main purpose of all or any triangulation was to support the reliability and validity of the informational data and minimize bias (Fusch et al., 2018). Correlated data from different methods of data collection, such as interviews, documents, and literature, contributed to the methodological triangulation of the data (Fusch et al., 2018). I used interview data, documents offered by the participants, any documents supporting my research, and all literature supporting my research findings in a single qualitative case study for methodological triangulation and member checking.

Credibility

Credibility occurs when there is an alignment of the results with reality and is established through triangulation, saturation, rapport building, prolonged engagement, member checking, inclusive coding rather than reduced coding, and iterative questioning (Nyirenda et al., 2020). Qualitative researchers provide the opportunity for enhanced credibility, transferability, dependability, and confirmability (Krawczyk et al., 2019). Credibility aligns the results with reality and establishes by triangulation, saturation, rapport building, prolonged engagement, member checking, inclusive coding rather than reduced coding, and iterative questioning (Nyirenda et al., 2020). I ensured credibility by performing semistructured interviews with healthcare leaders, building rapport, analyzing organizational documents, organizational documents including financial and process documents, and ensuring methodological triangulation by reviewing the literature thoroughly for data saturation. I had multiple strategies for establishing a professional working relationship with the participants to establish trustworthiness and confidentiality, such as having multiple contacts with the participants. The rigor and credibility of the research were enhanced by using purposeful sampling methods (Forero et al., 2018). I only used participants who have had at least 1 year of experience in successfully improving patient satisfaction scores and growing revenue in hospital settings through continual engagement to enhance credibility.

After the interview, I performed member checking to verify the interpretation of the information in the data to add to the credibility of the data. The methods of member

checking confirmed the interpretation of the interview transcripts and engaged the participants in the interpretation process (Tess et al., 2018). I sent an e-mail to each participant with my interpretation of the data for member checking. The participants affirmed the accuracy of my interpretation of the data or offered comments on my interpretation by replying via e-mail for the validity, rigor, and credibility of the interpretation of the data. The integrity and precise interpretation of the data were important through the data analysis of the data and reconfirming everything with the participants to help members check and confirm the accuracy of the data and the interpretations (Nyirenda et al., 2020). I also performed a document review to add to the rigor, validity, and reliability of the data and analysis.

Confirmability

Confirmability occurs when the researcher is neutral even after designing the research study and executing the study, where the findings are free from any bias as much as possible (Nyirenda et al., 2020). A researcher would always have to defend one's research against the bias of validating the data's trustworthiness. A researcher may think that getting trustworthy participants would yield trustworthy data, but it was significant to consider that some knowledgeable people were not good with the interview process and may have missed mentioning something due to being nervous or recorded. Experienced researchers suggested that data triangulation increased the trustworthiness of the data, such as debriefing, member checking, and document review (Lauri et al., 2020). There were also some research suggestions that bias training enlightened the researcher to

recognize unconscious judgments (Lauri et al., 2020). I used methodological triangulation, debriefing, use of data saturation, and member checking to mitigate researcher and participant bias. Additionally, to mitigate bias, I contacted a senior leader in the organization, who then contacted another leader in the organization, who provided me with contact information for the healthcare leaders meeting my interviewee's guidelines and requirements.

The researcher established trustworthiness by demonstrating that the research findings align with the participant's views without including any researcher bias or influence (Daniel, 2018). The strategy I used to gain access to participants was by first contacting healthcare leaders I knew already through social media, such as Facebook (Meta) and LinkedIn, who met the criteria with information about my research study. Once he or she agreed to participate, I sent an e-mail with the interview consent form to obtain consent before scheduling the interview. The interview was scheduled according to the optimal time for the participant. I asked the participants to please reply via e-mail with the words "I consent" for the informed consent for 18 years and older before they start the interview process. I made myself available for questions or concerns anytime to build transparency and trustworthiness. After the interview process, I did the follow-up and debrief for member checking to confirm data interpretation and analysis alignment with shared information from the participants for reliability and validity.

Transferability

Transferability occurred when the findings of the qualitative research study were applicable to other contexts through thorough and detailed assumptions and the description of the study's context (Nyirenda et al., 2020). Transferability did not signify generalizability. According to the researchers, generalizability was more aligned with quantitative research over qualitative research since, in qualitative research, the participants' points of view were guides to the findings over just the researcher's interpretation alone (Cobern & Adams, 2020). External validity is measured for the generalizability of the results of the research in various participants, environments, or times (Taylor, 2018). Qualitative findings were also somewhat subjective and particular to a specific case. External validity in qualitative research was more transferable rather than generalizable to other groups or settings with similar characteristics to suggest similar findings. I used publicly available document reviews, data saturation, member checking, rapport building, and methodological triangulation to enhance the trustworthiness and rigor of my qualitative research study to be most applicable to the future transferability of similar research pursuits.

Data Saturation

Saunders et al. (2018) stated that data saturation transpires when the researcher collects and analyzes data until no new data or analysis exist. Collecting qualitative data in a qualitative case study involved achieving data saturation. Saunders et al. claimed that the researcher reaching saturation contributes to the quality and rigor of the research study. The four different saturation models discussed by Saunders et al. were theoretical,

inductive thematic, a priori thematic, and data saturation. I used the data saturation model, where the new data repeats the previous data's expression. I also used member checking, where the data and analysis were shared to verify the data's accuracy with the key informants. Member-checking methods confirmed the interpretation of the interview transcripts and engaged the participants in the interpretation process (Tess et al., 2018). Using the method of member checking added to the validity of my data collection and analysis. I used purposeful sampling for the optimal sample size selection to achieve data saturation. No new information transpired to answer the overarching research question, and the same information offered by each participant started repeating.

Transition and Summary

In Section 2, I reiterated the purpose statement and explained the researcher's role, participants, research methodology and design, and the reasoning for population and sampling. I also included the ethical research standard applications, data collection instruments, technique, organization, analysis, and groundwork for the research study's reliability and validity.

In Section 3, I included the applications for professional practice and the implications for social change with the presentation of the findings, the recommendation for action and future research, reflection, and the conclusion.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative single-case design was to explore healthcare leader strategies in a hospital to improve ED patient satisfaction and grow revenue. In this study, I answered the following research question: What strategies did healthcare leaders in the hospital industry use to improve ED patient satisfaction and grow revenue? I conducted semistructured virtual interviews with five healthcare leaders. Through purposeful sampling, I selected participants who had at least 1 year of employment and experience in a healthcare leadership position and who have also successfully improved patient satisfaction scores and grew revenue in the hospital ED. I obtained consent via e-mail before beginning the interview after IRB approval. I also reviewed the literature, reviewed organizational documents, and conducted member checking with each participant to confirm the accuracy of my interpretation and to ensure trustworthiness through methodological triangulation. The three themes that emerged from my research were enhanced information exchange and engagement, optimizing workflow processes and values, and structural enhancements and signage.

Presentation of the Findings

The overarching research question was: What strategies did healthcare leaders in the hospital industry use to improve ED patient satisfaction and grow revenue? Three themes emerged from the study. Theme 1 was enhanced information exchange and engagement with the subthemes of detailed patient comments and feedback and setting

patient perceptions and expectations. Theme 2 was optimizing workflow processes and volumes, with the subthemes of ED throughput, initiatives and staffing, continuous improvement, and communication, and removing wastes and adding value. Theme 3 was structural enhancements and signage with the subtheme of decreasing patient wait times.

Theme 1. Enhanced Information Exchange and Engagement

Theme 1 was the strategy of enhancing information exchange and engagement, where participants discussed the significance of comments, feedback, surveys, share, questions, marketing, campaign, perception, and expectations, as mentioned in Table 1. Allowing patients to provide detailed comments and feedback on the patient satisfaction surveys was a vital part of improving patient satisfaction scores. Participants also discussed sharing questions and information through marketing campaigns that enhanced patient knowledge in optimal timings and situations to use the hospital ED, contributing to improved patient satisfaction scores and revenue growth. Another significant factor in improving patient satisfaction was aligning healthcare professionals in healthcare delivery with the perceptions and expectations of the patients. Minimizing patient confusion and frustration while improving patient clarity, communication, and comfort, including the comfort of the family members in the waiting area, contributed to improving patient satisfaction and growing revenue. Sharing detailed patient comments and feedback through surveys and setting patient perception and expectations through marketing campaigns were integral components of the enhanced information exchange and engagement in Theme 1.

Table 1

Theme 1 Enhanced Information Exchange and Engagement

Reference	Frequency
Comment	92
Feedback	86
Survey	74
Share	70
Questions	66
Marketing	51
Campaign	39
Perception	27
Expectation	26

Detailed Patient Comments and Feedback

The participants highlighted the significance of sharing detailed patient comments and feedback through surveys with the staff and leadership as a strategy and opportunity to improve ED patient satisfaction scores and grow hospital revenue. Informally asking the patient about the quality of care, comfort, experience, questions, and room for improving verbally before discharging the patient may allow the healthcare professional

an immediate opportunity to address any negative comments. Participants noted that if all the verbal comments are positive, then it is beneficial to probe the patient to take the Press Ganey patient satisfaction survey that will be mailed to them. It would contribute to improving the quality of healthcare delivery and patient care.

My study findings support Jain and Pareek (2020), who found that the comfort level of the ED waiting areas influenced the improvement of patient satisfaction scores and resulted in greater hospital revenue. P1 stated that including a comments section to Press Ganey scores is a document that made it a better measure of a survey for patient satisfaction over HCAHPS scores another document because it allowed for a detailed explanation than just a number or percentage. The ED Press Ganey mean scores from the 2017 to 2021 document put the majority of the categories in the range from 80% to 90% percent satisfied, on average. The two categories on the ED Press Ganey scores document with mean scores from 2017 to 2021 that patients scored the lowest remarks ranging from 65% to 80% were the category of comfort in the waiting area and waiting time to the treatment area. P2 mentioned that patients writing in the surveys about particular modifications, such as the service excellence liaison, improved patient satisfaction scores by improving patients' comfort as they waited in the waiting room. P3 and P4 discussed the significance of sharing constructive feedback comments from patients on patient satisfaction surveys for recognition or room for improvement.

According to the HCAHPS scores, a public document for 2022 for the patient satisfaction survey, the physician communication scores were equal to other hospitals in

the state while being 5% lower than the national average, and the nurse's communication scores were 4% higher than the state while being 1% lower than the national average. Additionally, on the HCAHPS public document from 2022, communication with staff explanation to medicine scores was 4% higher than the state while being 2% lower than the national average, and communication of patients understanding their care scores was 2% higher than the state score while being 3% lower than the national scores. Patient communication on recovery instruction was equal to the state and national scores. A vital component of having high patient satisfaction scores could be the opportunity to participate in merit-based incentive payment systems (MIPS). While detailed patient comments and feedback were significant, setting patient perceptions and expectations was also important during enhanced information exchange and engagement.

Setting Patient Perceptions and Expectations

Healthcare leaders incorporated strategies of modifying staffing, marketing, and campaigns to improve patient satisfaction scores in the ED and grow revenue. Healthcare leaders use strategies to improve patient perception and expectations through marketing campaigns to improve staff wellness and happiness. Patient education leads to catering and understanding the unique patient population for the area and communicating everything carefully and clearly, spending more time during discharge, having eye contact, and sitting at the patients' level while instructing patients to read the discharge instructions carefully when getting home from the ED. The patient should feel that the

staff cares for their well-being and that they are not being rushed out of their room without care.

My research findings align with the literature review in which Sengupta et al. (2019) discussed that improving strategies of timely communication and enhancing hospital protocol to improve staff coordination and operational performance influenced patient satisfaction and revenue growth. P1 highlighted the significance of leadership communicating the organizational goals and standards of behavior and expectations to improve healthcare delivery and patient satisfaction in the hospital's ED. P2 discussed the importance of setting patient expectations by improving patient knowledge through campaigns and optimizing ED usage. P3 and P4 mentioned the significance of leadership rounding in the ED to improve patient satisfaction and grow revenue. All healthcare leaders had to use continuous transparent, honest communication with staff to sustainably improve organizational culture and commitment to improving ED patient satisfaction scores and growing hospital revenue. P4 and P5 mentioned leadership asking patients questions and comments when rounding to help improve patient satisfaction scores and grow revenue. While my research highlighted a relationship between improving patient satisfaction scores in the ED and growing hospital revenue, according to the public financial statements document, the net assets steadily grew each year from 2017 to 2019.

While the overall mean patient satisfaction scores grew from 2017 to 2018, they decreased in 2019. Following the decrease in 2019, there was a brief increase in 2020, but due to the COVID-19 pandemic, it drastically decreased in 2021, which could indicate

the overall revenue growth of the hospital. While setting patient perceptions and expectations is vital in Theme 1, optimizing workflow processes and volumes is also significant in Theme 2.

Theme 2. Optimizing Workflow Processes and Volumes

Theme 2 was optimizing workflow processes and volumes where participants highlighted goals, targets, measure, implement, initiative, satisfaction, time, waiting, sitting, discharge, value, staffing, and teams, as highlighted in Table 2. Participants discussed the significance of implementing several throughput initiatives with particular goals and targets measuring patients' movement through the ED to improve time, waiting, sitting, discharge, staffing, and teams. Optimizing workflow processes and volumes was vital to improve patient satisfaction scores in the ED and growing revenue, as productivity was the measure of the balance of staff-to-patient ratio, determining if the ED was making money or losing money. There was a point when seeing too many patients through the ED contributed to the loss of revenue. Alternatively, having fewer staff per patient would yield a loss of revenue, instead of growth, according to P3. The balance of trying to optimize staffing is essential to optimizing workflow processes and volumes is an art and a science to where the ED is improving patient satisfaction and growing revenue. A public document of the HCAHPS survey for 2022 highlighted that patient wait times in the ED before being seen was 17 minutes longer than the state time scores and 1.5 hours longer than the national scores. In theme 2, optimizing workflow processes and volumes is driven by the balance of moving patients through the ED or ED

throughput, initiatives and staffing, continuous improvement, and communication, and removing wastes while enhancing added value.

Table 2

Theme 2 Optimizing Workflow Processes and Volumes

Reference	Frequency
Goal	98
Target	96
Measure	94
Implement	88
Satisfaction	82
Time	76
Waiting	73
Sitting	68
Discharge	57
Value	52
Staffing	46
Team	42

ED Throughput

Balancing the movement of patients through the ED optimizes the workflow processes and volumes. While decreasing patient wait times contributes to minimizing patient and patient family frustration and eases the flow of patients through the ED, there is a balance in ED staffing and patient flow to grow revenue or lose revenue. There is a

certain level at which the hospital reimbursements for the volume of patients seen versus the patient-to-staff ratio could be tipped to move the ED from a revenue growth environment to a revenue loss environment. It is vital for healthcare leaders and senior leadership to constantly monitor the movement of patients through the ED and monitor staffing simultaneously to benefit from this sensitive balance.

Theme 2 of optimizing workflow processes and volumes is in alignment with my conceptual framework at the macro level of GST. My conceptual framework of GST includes the following subcomponents for healthcare leaders: (a) feedback loops, (b) self-referent, (c) system dynamics, (d) sense-making, (e) complexity measurement, and (f) goal-oriented guided behavior. GST was an open system with various parts interacting with one another in nature (Patton et al., 2016). Braithwaite (2015) defined the GST as an intricate network of parts of the system and the cumulative method. The healthcare environment is a network of systems embedded in higher-order systems influencing each other and all the members of the healthcare delivery process (Simola, 2018).

Participant comments supported these concepts of GST. P1 mentioned the significance of the influence of providers on the movement of patients through the healthcare system directly impacted strategies used to improve patient satisfaction scores, such as the provider sitting in the room, the patient waiting time in the waiting area, discharge time, and protocols. Leadership had to implement several throughput initiatives with targets and goals to measure and improve patient satisfaction scores, according to P1. P2 and P3 discussed making a positive impact by making the first impression and the

leadership initiative of the blameless apology to improve patient satisfaction scores and grow revenue. Leadership had to set targets and goals for goal-oriented behavior, feedback loops, system dynamics, sense-making, and complexity measurement at the macro level to improve ED patient satisfaction scores and grow hospital revenue. ED throughput and initiatives and staffing are significant sub-themes to optimizing workflow processes and volumes.

Initiatives and Staffing

Implementing initiatives and optimizing staffing contribute to improving process workflows and volumes. Healthcare leaders use strategies to inspire the people they lead, help them recognize their values, and create a values-centered culture where there is room for safe communication among levels of staff without fear which minimizes room for gossip. Team building activities give tools to the staff to pull through on shifts with unexpected or uncalculated staff shortages. When the staff is valued and feels vested in their identity and reputation and the organization, they are more inclined to pull through challenging times together. Building safety, trust, and values help staff improve workflow processes and volumes.

P1 highlighted that patient satisfaction is not just a survey measure but ED target throughput time, discharge time, and several other throughput initiatives that influence patient and hospital goals in improving patient satisfaction and growing hospital revenue. Vital enablers of patient satisfaction scores and revenue comprised commitment to care teams, the ED staff and leaders committee, service excellence teams and advocates, and

leadership oversight according to P3, P4, and P5. Meeting staffing shortages, as mentioned in a public document with contracted groups of physicians and staff, also helped improve patient satisfaction scores and grow revenue according to all participants. Initiatives and staffing and continuous improvement and communication are vital to optimizing workflow processes and volumes.

Continuous Improvement and Communication

Continuous improvement and communication also contribute to optimizing workflow processes and volumes. Healthcare leaders could easily present the mission and vision statement when the front-line staff once or twice during the team meetings, but if front-line staff are accountable for mentioning their mission and vision statement before each meeting which aligns with the c-suite mission and vision statement, they are more inclined to remember and apply it. Leadership should motivate staff by celebrating minor successes in meetings with recognition to sustain continuous improvement. When leadership can build trust in the organization, it increases accountability and creates an accountable culture. Additional continuous improvement and communication opportunities in improving ED patient satisfaction scores while growing hospital revenue include follow-up calls being worked into a billable care plan. This also shows the patients the continuum of care and clarifies follow-up instructions, so they only return to the ED for the same problem if necessary.

Theme 2 of optimizing workflow processes and volumes aligns with my conceptual framework of DMAIC at the micro level. DMAIC is a continuous

improvement methodology to identify, measure, calculate, implement, and execute processes to minimize variation and resolve issues and was a tool of six sigma (Dziak, 2017). Healthcare leadership strategies to improve ED patient satisfaction scores and grow revenue is a continual improvement process with consistent support and communication, with a top-down approach through organizational expectations and presentations according to P1 and a bottom-up listening and understanding of the front-line staff according to P3. The continuous improvement methodology in both top-down and bottom-up communication and understanding helped identify, measure, calculate, implement, and execute processes to minimize variation and resolve issues, improving patient satisfaction and optimizing revenue growth. Continuous improvement and communications and removing wastes while adding value are significant to optimizing workflow processes and volumes.

Removing Waste and Adding Value

Removing waste while enhancing added value leads to optimizing workflow processes and volumes. The concept of lean thinking means getting all the work tasks done simultaneously so staff and physicians would only have to touch a patient once except for the "kiss goodbye," such as ordering all the labs at once. It removes waste and unnecessary repetitive actions while adding value in optimizing workflow processes and volumes. Removing wastes as far as organizing the staff workstations, overhead workspace, and patient room to look neat, tidy, and organized enhance added value, optimizes workflow and volumes, and improves patient satisfaction scores.

In alignment with the literature researched, flow is an added value activity for patient satisfaction regarding timeliness and efficiency of the process (Tlapa et al., 2020). Added value is a product of an activity or process yielding a financial or quality improvement, efficiency, outcome, access, timeliness, safety, and benefit from the patients' perspective (Zipfel et al., 2019). VSM is a process improvement tool to visually analyze and map out each step in the process from beginning to end to remove wastes, minimize non-value-added activities, and standardize workflow processes optimizing delivery outcomes (Po et al., 2019). Optimizing ED flow by putting a provider in triage contributed to improving patient satisfaction scores and growing revenue, according to P1. Adding the provider in triage also contributed to an added value by improving the access, efficiency, quality, and timeliness to healthcare for patients while yielding improved patient satisfaction scores and growing revenue, as mentioned by P1 and P3. Values stream mapping and lean initiatives also improved patient satisfaction and growing revenue, such as a patient moving through the ED with throughput time targets from when they enter to when they are discharged or admitted, according to P1, P2, and P3. GST, DMAIC, flow, added value, and value stream mapping were strategies healthcare leaders used to improve patient satisfaction scores and grow revenue. Removing wastes and adding value is significant to optimizing workflow processes and volumes, while theme three highlights structural enhancements and signage as vital to improving patient satisfaction and revenue growth.

Theme 3. Structural Enhancements and Signage

Theme 3 was the strategy of modifying and adding structural enhancements and signage. To improve patient satisfaction scores and grow revenue by optimizing patient flow through the ED, minimizing falls and confusion, increasing patient safety, and assisting families in finding their way through the hospital while waiting. Participants discussed impact, revenue, systems, improvement, scores, growth, and falls as critical aspects of structural enhancements and signage, as displayed in Table 3. The lack of structural enhancements and signage led to long patient wait times, increased falls or injuries, confusion, overcrowding, lower levels of patient satisfaction, and revenue loss, as supported by public documents, literature reviews, and participant interviews. Participants discussed the need for leadership to review ED systems to modify or expand the structure and signage periodically to enhance patient communication, minimize confusion, optimize usage and waiting times, maximize patient safety, improve patient satisfaction, and grow revenue. In Theme 3, structural enhancements and signage are vital in decreasing patient to-wait times and fall rates to improve patient satisfaction scores and revenue growth.

Table 3

Theme 3 Structural Enhancements and Signage

Reference	Frequency
Impact	89
Revenue	76
System	67
Improve	62
Scores	60
Growth	58
Fall	49

Decreasing Wait Times

Modifying alternatively adding structural enhancements and signage to decrease wait times and fall rates, improving patient satisfaction and growing revenue. It is not just modifying the workspace, patient rooms, or waiting rooms in the ED which contribute to structural enhancements and signage, there are additional magnetic visual cues for high alert commutation internally in patient rooms that are helpful right away rather than searching for a small computer icon for the notification. Visual signaling of all internal communication is extremely helpful and complementary to the modified ED or additional specialized pediatric or new ED units.

P3 explained how adding additional signage in the patient rooms improved communication between medical professionals who entered the room and between shift changes leading to an improved continuum of care, patient experience, patient satisfaction scores, and revenue. Spencer et al.(2019) highlighted that approximately $500 of revenue growth resulted from each patient LWBS in EDs. Robinson et al. (2020) discussed that more efficient healthcare systems could care for more patients, leading to higher patient satisfaction and revenue growth to support additional personnel for patients. Ortíz-Barrios and Alfaro-Saíz (2020) explained that lengthy hospital waiting times, extended length of stay, overcrowding, high LWBS, and excessive ED patient flow times lead to low patient satisfaction and revenue loss. Spencer et al. (2019) found that decreasing extended patient wait times, reducing the overcrowding ED experience, and reducing the number of LWBS patients improve patient satisfaction leading to revenue growth.

My research study results support the findings of these authors. The wait times for patients' LWBS were equal to the state and national scores on the HCAHPS survey public document. Throughput targets and time improved patient satisfaction scores and revenue growth, according to P1. P4 and P5 mentioned that lean initiatives were used to optimize patient information delivery who left without lab results through patient phone call follow-ups. Particular councils and committees are contributing to special initiatives and improving accountability, reorganizing supplies, and equipment for easy access according to all participants. Improving patient safety and reducing patient fall rates also

improved patient satisfaction scores while growing revenue. The HCAHPS survey, which is a public document from 2022, highlighted that the fall rates from this hospital were equal to the state and the national levels after a lean initiative project implementation on fall prevention by a healthcare leader, as explained by P3. The ED is a system within a network of systems where structural enhancements and signage can improve the access and quality of patient care, improving patient satisfaction and growing revenue, according to P2 and P3. Structural enhancements and signage led to decreased wait times.

Applications to Professional Practice

Findings from my research uncovered that healthcare leaders in the hospital industry use several strategies to improve ED patient satisfaction scores and grow revenue. One of the strategies healthcare leaders used was to listen to detailed patient comments and feedback carefully. Another strategy used by healthcare leaders was to set patient perceptions and expectations. Other strategies healthcare leaders used were ED throughput, initiatives and staffing, continuous improvement, and communication, and removing wastes and adding value. Healthcare leaders utilized a combination of strategies to decrease patient wait times, improve ED patient satisfaction scores, and grow hospital revenue.

Particular applications to professional practice by participants included provider-in-triage, lean initiatives, informational and marketing campaigns, hourly leadership rounding, and commit-to-sit. Additionally, house-wide training on making a positive impact, daily performance huddles, balancing staffing, and various leadership task

entities were significant in improving patient satisfaction scores and growing hospital revenue. Applying these initiatives did improve patient satisfaction scores significantly to almost reaching pre-pandemic levels and growing hospital revenue per the participants.

Other healthcare leaders and managers could benefit from these research findings by understanding the significance of continuous process and performance improvements, such as minimizing patient wait times. Additionally, improving informational marketing campaigns in educating the community on when to optimally use the ED versus urgent care by setting patient perceptions and expectations enhanced informational exchange and engagement. Leadership sharing detailed patient comments and feedback with managers and staff would help them identify the room for improvement and celebrate the areas of best practices in healthcare delivery. This process is significant in building and sustaining staff and managerial morale and motivation, creating a supportive and successful organizational culture that promotes the improvement of patient satisfaction scores and growing hospital revenue.

The findings on optimizing workflow processes and volumes were relevant to improving business practices to measure and meet highlighted goals and targets, implement initiatives effectively, improve the value added, remove waste through lean initiatives, improve patient satisfaction scores, and grow hospital revenue. According to one of the participants, there is a delicate balance between staffing ratios and the number of patients seen through the ED. When there are too many patients seen through the ED, it could put a strain on staff performance, adversely impacting patient satisfaction scores

and even leading to the loss of revenue at a particular point. The optimal functioning of the back office is equally significant, if not more significant than the optimal functioning of the front office, to improve patient satisfaction scores and grow hospital revenue.

Healthcare leaders may improve business practice through structural enhancements and signage which optimize patient flow, minimize falls and confusion, increase patient safety and communication, and assist patient families who are waiting, thereby improving patient satisfaction and growing hospital revenue. Ortíz-Barrios and Alfaro-Saíz (2020) explained that lengthy hospital waiting times, extended length of stay, overcrowding, high LWBS, and excessive ED patient flow times lead to low patient satisfaction and revenue loss. My study findings support Jain and Pareek (2020), who found that the comfort level of the ED waiting areas influenced the improvement of patient satisfaction scores and helped grow hospital revenue. Modifying workspace, patient rooms, and waiting rooms and adding new units through structural enhancements and signage improve communication between patients, patient's families, staff, and visitors, which contribute to improving business practice by raising patient satisfaction score and growing hospital revenue.

Implications for Social Change

Performing a single qualitative case study on strategies healthcare leaders use to improve ED patient satisfaction and grow revenue contributed to positive social change by enhancing the quality of life regarding the health of the people and families in communities. Healthcare leaders and staff were educating community members to

become more health conscientious, inspired by increasing preventative healthcare and maintaining good health. The community members learned when using the ED versus urgent care best through informational and marketing campaigns. Healthcare leaders improved patient satisfaction scores and indirectly grew patient revenue through informational campaigns, optimizing the ED usage, improving patient knowledge and expectations, making a great first impression, giving them a choice, and structurally modifying the ED for easier usage and flow.

The most important implication of social change was when healthcare leaders implemented employee wellness programs to retain the employees of the community and reduce the need to rehire new employees frequently. When the employees were happy and cared for, they were able to provide the best care, improving patient satisfaction scores and growing hospital revenue. Healthcare leaders could also provide improved patient safety and reduce opportunities for declining patient satisfaction scores and revenue by concentrating on strategies for improving patient satisfaction scores.

Enhanced communication between front-line staff and leadership provided an opportunity to apply best practices to improve employee health and wellness healthcare delivery to patients, thereby improving the overall community's health and well-being. Collaboration between the employees, healthcare leaders, board of directors, and the community provided the financial support needed to optimize the ED structure, usage, quality of care, and healthcare delivery while improving patient satisfaction. Healthcare leaders providing house-wide training on making a positive impact on the standards of

behavior and communication to meet patient expectations contributed to the successful and sustainable implementation of strategies for improving patient satisfaction and the quality of healthcare delivery by improving social health in the hospital and the community. Reviewing best practices in healthcare delivery and implementing the study's findings also contributed to positive social change by identifying optimal strategies healthcare leaders use to improve the quality of healthcare delivery to the community.

Recommendations for Action

The steps to beneficial action from this study involve healthcare leaders realizing the enhanced information exchange and engagement internally through training and cross-training. Other beneficial actions include optimizing workflow processes and volumes via additional educational opportunities and practice and improving structural enhancements and signage to communicate clearly and swiftly and minimize confusion and risks. Senior leadership and the C-suite leadership should be on board in providing additional resources to improve patient satisfaction scores and grow hospital revenue to ensure the future success and sustainability of the hospital. The CEO and C-suite leadership, senior leadership, and the board of directors could study and understand the delicate criteria that could tip the scale from revenue growth to loss while working to improve patient satisfaction scores. Healthcare leaders would benefit from gaining stakeholder buy-in by sharing with others the significance of lean and added value of implementing lean initiatives. Particular lean initiative strategies could include minimizing waste and improving productivity by contributing to the hospital's

performance improvement and quality assurance departments since it benefits the return on investments.

Hourly leadership rounding, commit-to-sit, split-flow throughput, a physician-in-triage, building a brand reputation, and a caring organizational culture while balancing staffing for high productivity help improve patient satisfaction and grow hospital revenue. Minimizing staff burnout, focusing on employee healthcare, retention, and contracting or outsourcing when necessary are a few particular strategies healthcare leaders use in the ED in a hospital setting to improve patient satisfaction scores and grow hospital revenue. Healthcare leaders decreasing patient wait times, removing wastes and adding value, continuous improvement, and communication, and minimizing ED overcrowding, supported by the data analysis and literature review, increased patient satisfaction and grew hospital revenue.

The results of this study could benefit leaders of other industries as well, as most of the industries are offering a product or service to the client and are trying to have high client satisfaction for profitable, successful, and sustainable business in a competitive and dynamic economy. Lean initiatives began in the automobile industry and trickled their way to scratching the tip of the iceberg in the healthcare industry. There is still far more to learn and apply to optimize workflow and processes. However, it is easier to gain stakeholder buy-in once leadership understands the monetary savings and benefits. Results may be disseminated via publishing literature, educational material, literature conferences, specialized training, and informational sessions virtually and in person in

various settings and with various audiences.

Recommendations for Further Future Research

The purpose of this qualitative research was to explore healthcare leader strategies in a hospital to improve ED patient satisfaction to grow revenue. Further research recommendations include expanding the research via a quantitative or mixed methods approach, increasing the sample size, conducting face-to-face interviews, and different sampling techniques. Additional further recommendations could involve comparing other variables influencing patient satisfaction, using healthcare leaders with varying years of experience, or utilizing the survey method instead of the interviews to access large samples of data.

Limitations, weaknesses, or potential gaps in the research study existed due to the researcher's choice or circumstantially (Ross & Zaidi, 2019). The number of participants was a limitation due to the medical environment's current pressures (Ross & Zaidi, 2019). While five participants were used for the purposes of this qualitative research study, which could be a limiting factor due to time constraints, future research could source a larger sample to make the findings and conclusions of the future research study more generalizable.

Initially, the participants were supposed to have face-to-face interviews, but due to the COVID-19 pandemic, they proceeded with the interview process virtually. Future research might include face-to-face interviews, which would provide more in-depth information due to a potential increase in ease and comfort. The participants would also

be under lower stress and be in a lesser time constraint if things return to normal after the COVID-19 pandemic passes and the strains on the healthcare system are lessened. Lower levels of stress and having more time to think of more information during the interviews could offer a richer response to the research questions.

A delimitation is a particular sampling method selected or used due to the availability of resources or lack thereof (Theofanidis & Fountouki, 2018). I used purposeful sampling as a technique to maximize the utilization of the available resources. Given a different future research circumstance and the opportunity for a different research protocol, a different sampling technique could result in different findings and conclusions, such as snowball sampling or any other method of sampling.

Future research could also include interviewing other staff beyond healthcare leaders, performing a multiple-case study instead of a single case study design, comparing cost savings or other variables linked to patient satisfaction rather than revenue growth, and comparing healthcare leaders with various years of experience or levels of qualifications. Future researchers could also use survey results which are more feasible to collect in large numbers from various hospitals to gather a large sample pool to make the findings more generalizable.

Reflections

My experience within the DBA Doctoral study process has changed my life completely by applying research and investigation to every aspect of life, professionally, personally, and academically. I have immense respect and value for everyone who

attempts to complete this journey, as I deeply comprehend the rigor, sacrifice, time commitment, guidance, and persistence required to progress in this journey successfully. My personal bias or preconceived ideas were that it would be harder than my master's program or include a few more courses. There was much more research, investigation, analysis, guidance, and time commitment required than the master's level to complete the DBA Doctoral study journey.

There was also no COVID-19 pandemic when I initiated my doctoral research, which resulted in changing my approach to recruiting participants, provided the situation of requiring virtual interviews instead of face-to-face interviews. It was also challenging to ask healthcare leaders to take some time to participate in my research study, given the pressures of the COVID-19 pandemic on hospitals. Previously, resources in the hospital that were directed to improving patient satisfaction scores had to be diverted to more essential projects, such as providing care to a large influx of patients given an already saturated hospital environment. Pressures on healthcare leaders and professional staff, such as extended hours with minimal rest, could have also influenced the effects of these factors on participants and the situation if there was no COVID-19 pandemic straining the healthcare system.

After completing the study, I have a deeper appreciation of the significance of organizational leaders and culture to support ongoing and continual process improvements to improve patient satisfaction to grow hospital revenue. Each member of a healthcare unit and hospital is significant in influencing patient experience and

satisfaction ratings to grow hospital revenue, even though healthcare leaders should try their best to provide their departments and teams with the optimal strategies for success. Combining ongoing high-quality research and practical learning opportunities is vital to the understanding and progress of process improvement strategies for healthcare leaders to improve patient satisfaction to grow hospital revenue. I also now have high regard for previous researchers and scholars who have paved the way for potential future research and learning than I ever had before.

Conclusion

This qualitative single case study highlights that healthcare leaders use various strategies to improve patient satisfaction scores and grow hospital revenue. Hourly leadership rounding, commit-to-sit, split flow throughput, a physician in triage, building brand reputation and a caring organizational culture, and balancing staffing for high productivity are some strategies to help improve patient satisfaction and grow hospital revenue. Minimizing staff burnout, focusing on employee healthcare retention, and contracting when necessary are a few particular strategies healthcare leaders use in the ED in a hospital setting to improve patient satisfaction scores and grow hospital revenue. Healthcare leaders decreasing patient wait times, removing wastes and adding value, continuous improvement, and communication, and minimizing ED overcrowding, supported by the data analysis and literature review, increased patient satisfaction and grew hospital revenue.

Physician education and understanding the business aspect of the back office are also essential to optimizing workflow processes and volumes, which improve patient satisfaction scores and grow hospital revenue. An additional waiting room as a structural enhancement improved LWBS to over 65%, improving patient satisfaction and increasing hospital revenue. The literature review was used in a methodological triangulation with the semistructured interview data collected from the participants, public documents, and conceptual framework. The methodological triangulation of data highlighted the significant strategies healthcare leaders use to improve patient satisfaction scores and grow hospital revenue.

In conclusion, the take-home message is that healthcare leaders should work closely with C-suite executives and gain stakeholder buy-in to leverage resources. This strategy would help by optimally using a combination of various successful evidence-based strategies and adjusting as needed, which would improve ED patient satisfaction scores and grow hospital revenue. Healthcare leaders would benefit from utilizing a combination of best practice strategies to enhance information exchange and engagement, optimize workflow processes and volume, and improve structural enhancements and signage. The conceptual frameworks of GST and DMAIC align with my findings. Hospital leadership learning, optimally implementing, educating, and training on the intricacies of best practice strategies, such as LSS initiatives, along with several additional initiatives and campaigns, contributes to improving patient satisfaction scores and growing hospital revenue.

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Appendix A: Interview Protocol

Hopefully, this interview will bring insight into hospital leaders' strategies to improve ED patient satisfaction scores to grow hospital revenue. The interview will be recorded but kept confidential and secure for five years. The eligibility criteria for participating in the research are having at least one year of employment and experience in healthcare leadership, successfully improving ED patient satisfaction to grow hospital revenue. I will obtain IRB approval through Walden University before beginning my research study data collection.

1. I will first contact a senior leader of the hospital with an e-mail and phone call with the information about my research study. I will be outlining all of the protocol questions, eligibility criteria, and benefits to the organization and the community for participating in the research study in this e-mail.
2. Then, I will introduce myself and be sending out the interview protocol, letter of agreement, and informed consent form to gain consent via e-mail from the participants.
3. Once they give me the written consent via e-mail, I will arrange for a comfortable location and setting to interview the participant virtually (due to the COVID-19 pandemic).
4. I will then review the consent form and answer any questions the participants may have; I also mention that participation is entirely voluntary, and the participant

may withdraw at any time for any reason by letting me know verbally or in writing.

5. I will then seek permission to record the interview.
6. Then, I will begin to ask the interview questions:

Research Question

What strategies do healthcare leaders in the hospital industry use to improve ED patient satisfaction to grow revenue?

Interview Questions

1) What strategies has your organization developed and implemented to assess and improve ED patient satisfaction?

2) What strategies has your leadership team developed and implemented to improve ED patient satisfaction and grow revenue?

3) What processes beyond the leadership team were vital enablers in facilitating the successful implementation of strategies to improve ED patient satisfaction?

4) What technology tools and techniques are you using to improve ED patient satisfaction and grow revenue?

5) How, if at all, has your organization ensured the organizational culture is supportive of the successful and sustainable implementation of strategies in improving ED patient satisfaction and growing revenue?

6) What other information would you like to share about strategies successful healthcare leaders in this organization use to improve ED patient satisfaction?

7) I will be looking for cues, paraphrasing as needed, and asking follow-up probing questions for in-depth responses.

8) I will wrap up the interview and thank the participant for participating in the research study; ask them if they have any further questions.

9) I will then schedule a time and date for the follow-up e-mail for participant member checking.

10) During member checking e-mail or phone verification, I will ask the participant to confirm the information, interpretation, and analysis for accuracy and ask for any additional information or documents he or she would like to share.

11) I will also share my contact information for the participant to contact me at any time in writing or verbally to withdraw from the interview at any time for any reason, with no repercussions.

12) I will thank the participant again for their time and participation, and feel free to contact me with any questions.

13) I will be audio recording the interviews and explaining that I will save the recordings for five years, where everything will be kept safe, protected, and confidential.