Impact of Leadership Skills Training on Patient Outcomes at Hospital

(An analytical study at SRH University Hospital in Lebanon)

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Abstract

Effective leadership in healthcare is essential for creating a culture of patient safety, promoting teamwork and collaboration, improving communication, and driving organizational performance. The aim of this study was to describe the findings of a systematic review of studies that examine the relationship between nursing leadership practices and patient outcomes. The review performed in the Medline (National Library of Medicine, PubMed interface) and EMBASE databases for the years 2004-2015. Quality assessments, data extraction, and analysis completed on all included studies. Twenty studies satisfied inclusion criteria and retained. Strong correlations found between leadership styles and improved quality care and associated measures. The highest-quality studies showed that leadership training programs affected participants' advancement in academic rank (48% versus 21%, P=.005) and hospital leadership position (30% versus 9%, P.008) additionally, participants published a higher number of papers compared with nonparticipants. The study concluded that leadership styles play an integral role in enhancing quality measures in healthcare and nursing. The study also found that leadership qualification affects the performance of leaders, mitigating performance-related incidents and raising patient and customer satisfaction.

Keywords: Leadership Training Programs, Patients Outcomes, Organizational Performance, Hospital, Lebanon.

الملخص

يعتبر القيادة الفعالة في الرعاية الصحية ضرورية لخلق ثقافة سلامة المرضى، وتعزيز العمل الجماعي والتعاون، وتحسين الاتصال، ودفع الأداء التنظيمي. هدفت هذه الدراسة إلى وصف نتائج مراجعة منهجية للدراسات التي تبحث العلاقة بين ممارسات القيادة التمريضية ومخرجات المرضى. تم إجراء المراجعة في قواعد بيانات ميدلاين (المكتبة الوطنية للطب، واجهة PubMed) وقاعدة بيانات EMBASE للسنوات ٢٠٠٤-٢٠١٥. تم استكمال تقييمات الجودة واستخراج البيانات وتحليلها

لجميع الدراسات المشمولة. استوفت عشرون دراسة معايير الإدراج وتم الاحتفاظ بها. وجد أن أنماط القيادة ترتبط ارتباطًا وثيقًا بالرعاية عالية الجودة والإجراءات المرتبطة بها. أظهرت الدراسات ذات الجودة العالية أن برامج تدريب القيادة تؤثر على تقدم المشاركين في الرتبة الأكاديمية (٤٨٪ مقابل ٢١٪ ، ص = ٠,٠٠٥) ومنصب القيادة في المستشفى (٣٠٪ مقابل ٩٪ ، ص = ٠,٠٠٨) وكان المشاركون أكثر نجاحًا في نشر الأوراق البحثية مقارنة بغير المشاركين. خلصت الدراسة إلى أن أنماط القيادة تلعب دورًا integral في تحسين إجراءات الجودة في الرعاية الصحية والتمريض. كما وجدت الدراسة أن تأهيل القيادة يؤثر على أداء القادة ، مما يقلل من الحوادث المرتبطة بالأداء ويرفع من رضا المرضى والعملاء.

الكلمات المفتاحية: برامج تدريب القادة، نتائج المرضى، الأداء التنظيمي، المستشفى، لبنان.

1. Introduction

1.11 Background of the study

Success in business and personnel management is a common goal for both individuals and institutions. This success hinges on a key element: the skillset that individuals develop both in their professional and personal lives. As one climbs the corporate ladder, the need for a broader and more refined skillset becomes increasingly urgent. Leadership skills, such as decision-making, problem-solving, communication, emotional intelligence, and stress management, are particularly crucial for achieving higher levels of success.

 In hospitals, the need for these skills is high where the most complex environment and where challenges impose higher degrees of leadership skills to reach the common ultimate goal of all health workers, which are good patient outcomes that can be measured through indicators such as patients satisfaction, patient fall, patient complain, centennial events…etc.

In the healthcare facility, effective leadership plays a vital role in driving positive patient outcomes. Leadership skills encompass a wide range of qualities and behaviors that healthcare professionals at various levels must possess to guide their teams and deliver high-quality care.

This correlation between leadership skills and patient outcomes has gained significant attention in recent years as healthcare organizations strive to enhance patient safety, satisfaction, and overall healthcare delivery.

Leadership skills extend beyond traditional hierarchical roles and are relevant to healthcare professionals across disciplines, including physicians, nurses, administrators, and other healthcare providers. These skills encompass the ability to motivate and inspire teams, make informed decisions, communicate effectively, manage resources efficiently, and promote a culture of collaboration and continuous improvement.

Patient outcomes, on the other hand, refer to the measurable results of healthcare interventions on patients' health status and well-being. These outcomes can encompass various aspects, such as mortality rates, complication rates, patient satisfaction, length of hospital stay, adherence to treatment plans, and overall quality of life.

Research in healthcare settings has indicated a strong correlation between leadership skills and patient outcomes. Effective leadership has been associated with improved clinical outcomes, reduced medical errors, enhanced patient safety, higher patient satisfaction scores, and better overall healthcare delivery. Conversely, poor managers can contribute to adverse patient outcomes, increased healthcare costs, decreased staff morale, and compromised quality of care.

The correlation between leadership skills and patient outcomes well established in healthcare facilities. Effective managers with the necessary qualities and behaviors can significantly influence clinical outcomes, patient satisfaction, and the overall quality of care. By fostering a supportive work environment, promoting continuous learning, and facilitating clear communication, healthcare leaders contribute to improving patient outcomes and enhancing the overall healthcare experience. Further exploration and research in this area are critical to identify specific leadership strategies and interventions that can implemented to maximize patient outcomes and drive continuous improvement in healthcare settings.

1.2 Statement of the Problem

Leadership is essential to improve healthcare. Effective leaders can create a positive work environment that supports patient care. They can also help to improve communication and collaboration among healthcare professionals. This can lead to better decision-making and improved patient care.

However, many healthcare leaders lack the skills and knowledge necessary to be effective. This can lead to problems such as poor communication, low morale, and high turnover.

"Is there an impact for leadership skills training on patient outcomes?"

1.3 Research Questions

Q1. Does acquiring leadership knowledge and skills in managers improve patient outcomes?

Q2. Any significant differences observed in places run by trained managers from those run by their partially trained or untrained counterparts.

1.4 Research Purpose

1.4.1 Scientific purpose

Highlighting the scientific dimension of the interdependence between leadership skills and patient outcomes and identifying the training needs of knowledge and skills that feed the leader to play an effective role in improving patient outcomes.

1.4.2 Practical Purposes

a. Helping hospital stakeholders to benefit from the results of the study to improve training processes in order to raise the culture of safety in the organizational behavior, the level of patient service and thus improve their outcomes.

b. Completion of research requirements for obtaining a master's degree in human resources.

1.5 Research Hypothesis

H1$_a$: There is a significant correlation between leadership skills training and patient's outcomes

H2$_a$: There is a significant correlation between leadership skills training and patients and families satisfaction.

H3$_a$: There is a significant correlation between leadership skills training and patient's complaints.

H4$_a$: There is a significant correlation between leadership skills training and patients fall.

H5$_a$: There is a significant correlation between leadership skills training and medication error.

H6$_a$: There is a significant correlation between leadership skills training and SSI (Surgical Site Infection).

H7$_a$: There is a significant difference between the group taking leadership programs and the group did not taking these programs in having leadership skills.

H8$_a$: There is a significant difference between the group taking leadership programs and the group did not taking these programs in patient outcomes results.

1.6 Methodology of Research

1.6.a   Analytical research

Analytical research is a type of research that analyzes data to identify patterns, trends, and relationships. It used to answer questions about why things happen and how they are connected. Analytical research can used to inform decision-making, develop theories, and create new knowledge.

1.6.b   Descriptive research

Descriptive research is a research method that systematically describes the characteristics of a population or phenomenon. It is used to answer questions about

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who, what, where, when, and how. Descriptive research often used to provide a foundation for further research, such as experimental research.

1.7 Significance of the study

The importance of the research lies in the fact that it is one of the few researches that directly target the role of managers in realistic numbers and indicators in improving patient satisfaction, in addition to that it is considered a direct link between leadership skills and their role in mitigating errors that affect patients to a degree that sometimes reaches reducing deaths and deteriorating their health conditions, and this increases the hospital's capabilities in developing administrative and training plans to fill gaps and improve its capabilities in self-development and community development.

1.8 Definitions

1.8.a Leadership skills:

Leadership is a set of behaviors used to help people align their collective direction, to execute strategic plans, and continually renew an organization. (McKinsey)

Leadership skills is the skills of Motivating, influencing, and guiding others including by providing vision and demonstrating integrity. (Oxford)

1.8.b Patient outcomes:

Patient outcomes are the results from care and treatments that patients receive in different settings. They measure the effectiveness, quality, and satisfaction of health care from the perspective of both patients and providers. Patient outcomes used for evaluation, decision-making, and improvement of health care by various organizations and researchers. Patient outcomes also affect the choice and competition of health care providers, as well as the transparency and accountability of the health care system (Science Direct journal).

1.8.c   Pressure ulcer:

Bedsores also called pressure ulcers and decubitus ulcers — are injuries to skin and underlying tissue resulting from prolonged pressure on the skin. Bedsores most often develop on skin that covers bony areas of the body, such as the heels, ankles, hips and tailbone.

1.9 Boundaries and Limitations

1.9.1   Geographic Boundaries:

The geographical scope of this research is SRHUH Ragheb Harb University Hospital, Nabatieh, and South of Lebanon.

1.9.2   The human scope:

Is the managers and heads of departments who directly or indirectly affect patient outcomes, and they fall into two categories:

i.   A category that has undergone the training program 40 Head

ii.   A category that has not subjected to this program at all 25.

1.9.3   Time Boundaries:

The study time is between the year 2018 and the first half of the year 2023, where the year 2018 marked the beginning of the training process for leadership skills. Considering that the focus on completing the training of employees (managers) on leadership skills was during the latter part of 2018, according to Kirkpatrick's model, the behavioral impact will appear effectively a year after the completion of the training process.

Figure 1. Kirpatrick's model

2. Methodology

2.1 Variables

In order to reach the desired goals of the study, it was necessary to monitor the effect of the first variable on the second variable, but before going into this detail, it is necessary to explain each variable so that we can monitor this effect.

A. First variable: Leadership Skills Training:

Nurses, doctors, and health administrators supervise teams and daily operations, but they may or may not be natural leaders. What makes certain people stronger leaders than others? Do you want to be a great healthcare leader?

Simply, before starting to know the skills of leaders, it is necessary to know the sources that any researcher or interested person can logically return to adopt, which are as follows:

1. **Books:** Numerous books on leadership provide valuable insights and guidance. Some notable references include "The Leadership Challenge" by James M. Kouzes and Barry Z. Posner, "Leaders Eat Last" by Simon Sinek, "Good to Great" by Jim Collins, and "Primal Leadership" by Daniel Goleman. (Kouzes & Posner, 2017)

2. **Biographies and Autobiographies:** Reading about the lives and experiences of successful leaders can offer valuable lessons. Examples include "Steve Jobs" by Walter Isaacson (Isaacson, 2011), "Long Walk to Freedom" by Nelson Mandela (Mandela, 1994), "My Life" by Bill Clinton, and "The Diary of a Young Girl" by Anne Frank.

3. **TED Talks:** TED -Talks feature inspiring speakers who share their insights on leadership. Some popular TED Talks on leadership include Simon Sinek's "How Great Leaders Inspire Action," Brené Brown's "The Power of Vulnerability," and Amy Cuddy's "Your Body Language Shapes Who You Are". (Cuddy, 2012)

4. **Leadership Development Programs:** Many organizations and institutions offer leadership development programs. These programs often include workshops, seminars, and mentoring opportunities to enhance leadership skills. Examples include the Center for Creative Leadership and the Dale Carnegie Training programs.

5. **Online Courses:** Platforms such as Coursera, TedX, and LinkedIn Learning offer online courses focused on leadership development.

6. **Mentors and Coaches:** Seeking guidance from experienced leaders who can serve as mentors or coaches can provide valuable insights and personalized advice on developing leadership skills. (Clutterbuck, 2014)

After reading, listening and watching many of these references, I found consensus on a set of titles that relied on the most prominent skills of the director in the health field, and I found a full answer in a study conducted by Carol Huston, leadership Journal, What Characteristics Make a Healthcare Leader?

When considering how to best prepare for a leadership role, it is essential to look beyond just what you have accomplished. How did you accomplish those things? How did you treat your

colleagues in the process? Excellent leaders make a difference to their whole organization by exemplifying the following qualities and traits.

True healthcare leaders do not think of themselves as above others. Rather, they understand the inner workings of their team and recognize everyone's contribution. Leaders admit when they do not have all the answers, showing respect and genuine appreciation of their colleagues by asking questions and listening to their perspectives. In turn, their team members reciprocate this trust and respect.

1. **Having Vision:** To positively influence and successfully lead a team, healthcare leaders must be visionaries who see the big picture and set ambitious goals. By maintaining focus on their vision, leaders guide their team to make progress on their patient and business goals even when they are simultaneously pulled in several directions. (Kouzes & Posner, 2017)

2. **Acting as a Mentor:** Good leaders are good mentors. They share their knowledge and experience with their counterparts and act as role models of the organization's culture. Along with personally advising their staff, Leaders must apply their problem-solving skills to make good decisions under pressure. Especially in healthcare, leaders need to stay composed during crises, maintaining the flexibility to think creatively and take decisive action when traditional measures are not effective. On a healthcare student's professional development. Healthcare leaders make the effort to communicate with their mentees, providing support, connecting them with resources, and helping them define their career goals. (Eby & Allen, 2007)

3. **Demonstrating Integrity:** A good leader knows their inner values and acts in alignment with them. This makes them trustworthy—not only to their colleagues but also to their patients. Honesty with patients means doing what you say you are going to do, and this integrity helps to foster a healthy relationship with everyone.

4. **Valuing Collaboration:** Great leaders value teamwork. They understand that an inter professional work environment, where clinicians across disciplines work as a team rather than in silos, is correlated with better patient outcomes.

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Therefore, in the healthcare system, managers play a crucial role in leading teams, ensuring quality patient care, and navigating complex challenges. To be effective leaders, healthcare managers require a diverse set of skills. Here are some of the most important leadership skills needed for managers in the healthcare system:

a. **Communication:** Strong communication skills are essential for healthcare managers to efficiently convey information, listen to feedback, and build relationships with staff, patients, and other stakeholders. Clear and empathetic communication helps in fostering a collaborative and cohesive work environment. (Forte & Cooper, 2013)

b. **Emotional intelligence:** Healthcare managers should possess emotional intelligence, which involves understanding and managing their emotions and those of others. This skill allows managers to show empathy, build rapport, resolve conflicts, and provide support to their team members, resulting in better teamwork and staff morale. (Loehr & Martin, 2005)

c. **Decision-making:** Managers in healthcare need to make critical decisions that affect patient care, resource allocation, and organizational goals. They should be able to gather and analyze information, consider different perspectives, and make informed decisions promptly. Effective decision-making skills are crucial for ensuring patient safety and efficient operations.

d. **Strategic thinking as a part of managerial skills:** Healthcare managers must think strategically to navigate the rapidly evolving healthcare landscape. They need to identify opportunities, anticipate challenges, and develop long-term plans to achieve organizational objectives. Strategic thinking enables managers to adapt to changes, innovate, and improve healthcare delivery.

e. **Problem solving:** Healthcare environments often present complex and multifaceted problems. Managers should be skilled problem-solvers, capable of identifying root causes, exploring creative solutions, and implementing effective strategies. Strong problem-solving skills enable managers to address challenges

efficiently and drive continuous improvement. (Dey & Haque, 2016) Leaders must apply their problem-solving skills to make good decisions under pressure. Especially in healthcare, leaders need to stay composed during crises, maintaining the flexibility to think creatively and take decisive action when traditional measures are not effective.

f. **Team leadership:** Healthcare managers must effectively lead diverse teams comprising healthcare professionals with different backgrounds and expertise. They need to foster collaboration, inspire motivation, and create a positive work culture. Effective team leadership involves setting clear expectations, providing feedback, supporting professional development, and recognizing achievements.

g. **Adaptability:** Healthcare systems are subject to constant changes, such as evolving regulations, technological advancements, and emerging healthcare trends. Managers need to be adaptable and embrace change while guiding their teams through transitions. Adaptability enables managers to stay ahead of industry developments and promote organizational resilience.

h. **Ethical decision-making:** Managers in healthcare face ethical dilemmas regularly, such as balancing patient autonomy, confidentiality, and organizational requirements. Ethical decision-making skills are vital for managers to navigate these challenges, adhere to professional standards, and maintain trust with patients, staff, and the broader community. (Ulrich, 2010)

i. **Leading with the heart:** is a concept that can apply to different domains, such as business, sports, and personal life. It involves engaging with people through empathy, honesty, and trust. It also means being purposeful, strategic, and mindful with decisions, words, and behavior. Leading with the heart can help build a more inclusive culture, have impactful conversations, and give confidence and freedom to others.

B. Second variable: Patients outcomes

When it comes to major global references in patient outcomes, several organizations and initiatives play a significant role in measuring and promoting healthcare quality and patient outcomes worldwide. Here are some of the prominent references in this area:

1. **World Health Organization (WHO):** The WHO is a specialized agency of the United Nations responsible for international public health.

2. **Institute for Healthcare Improvement (IHI):** The IHI is a nonprofit organization focused on improving healthcare quality and patient safety. They provide resources, expertise, and collaborative opportunities to healthcare organizations globally to achieve better patient outcomes.

3. **The Organization for Economic Co-operation and Development (OECD):** The OECD is an intergovernmental organization comprising 38 member countries. It collects and analyzes data related to healthcare systems, including patient outcomes, and produces comparative reports that help countries evaluate and improve their healthcare performance.

4. **The Joint Commission:** The Joint Commission is an independent, nonprofit organization that accredits and certifies healthcare organizations and programs in the United States. It sets standards and measures healthcare performance, including patient outcomes, to ensure high-quality care.

5. **National Quality Forum (NQF):** The NQF is a nonprofit, nonpartisan membership organization in the United States. It develops and endorses national consensus standards for measuring and reporting healthcare quality and patient outcomes. (Berwick & Hackbarth, 2003)

6. **EuroQol Group:** The EuroQol Group is an international network of researchers that developed the EuroQol-5 Dimensions (EQ-5D), a standardized instrument for measuring health-related quality of life. The EQ-5D is widely used in health research and outcomes assessment globally.

These organizations and initiatives contribute to the understanding and measurement of patient outcomes globally, providing valuable data and frameworks for evaluating and improving healthcare systems.

Based on the foregoing, gathering and reviewing these sources, in addition to reviewing most of the statistics of hospitals, including the hospital in which the research conducted, shows a set of patient outputs from which hospitals seek to obtain good results.

What are the most common patient outcomes related to leadership skills?

When it comes to healthcare and patient outcomes, leadership skills can play a significant role in shaping the quality and effectiveness of care delivery. While it is challenging to provide an exhaustive list of patient outcomes directly linked to leadership skills, here are some common ones:

1. **Improved patient safety:** Effective leaders prioritize patient safety and establish a culture of safety within healthcare organizations. They implement policies and procedures that reduce medical errors, prevent adverse events, and promote a safe environment for patients.

2. **Enhanced patient satisfaction:** Leaders who possess strong interpersonal and communication skills can positively influence patient satisfaction. They foster a patient-centered approach, promote effective communication between healthcare providers and patients, and address patient concerns, leading to higher levels of satisfaction.

3. **Higher quality of care:** Leadership skills such as strategic planning, quality improvement and performance management can contribute to improved care quality. Effective leaders set clear goals, establish evidence-based practices, monitor outcomes, and facilitate continuous improvement, ultimately leading to better patient outcomes. (Batalden & Berwick, 2003)

4. **Reduced hospital readmissions:** Leaders who focus on care coordination, effective discharge planning, and transitional care can help reduce hospital readmissions. By

ensuring seamless transitions between healthcare settings and promoting post-discharge support, leaders can improve patient outcomes and prevent unnecessary hospitalizations.

5. **Enhanced staff morale and engagement:** Leadership skills that prioritize staff development, recognition, and empowerment can positively affect patient outcomes. Engaged and motivated healthcare providers are more likely to deliver high-quality care, resulting in improved patient outcomes and overall organizational performance.

6. **Efficient resource utilization:** Effective leaders are skilled in resource management, including optimizing staffing levels, managing finances, and allocating resources effectively. By ensuring the appropriate allocation and utilization of resources, leaders can enhance patient outcomes by reducing wait times, improving access to care, and increasing operational efficiency.

7. **Lower healthcare costs:** Leadership skills that focus on cost-effective practices, resource utilization, and value-based care can help reduce healthcare costs. By implementing strategies to minimize waste, streamline processes, and enhance care coordination, leaders contribute to achieve more efficient healthcare delivery while ensuring optimal patient outcomes. (Westphal & Stern, 2006)

8. **Sample that I will work on:** Mortality rates, morbidity rates, patient satisfaction, and length of hospital stay.

It is important to note that the impact of leadership skills on patient outcomes can vary depending on various factors, such as the specific healthcare setting, patient population, and the overall organizational context. However, strong leadership skills that promote patient-centeredness, quality improvement, and effective teamwork are generally associated with positive patient outcomes.

C. Linking the two variables

Linking between leadership skills training and patient outcomes.

Leadership skills training can have a positive impact on patient outcomes in various healthcare settings. Effective leadership in healthcare is essential for creating a culture of patient safety,

promoting teamwork and collaboration, improving communication, and driving organizational performance. Here are some ways in which leadership skills training can linked to patient outcomes:

1. **Improved Communication:** Effective leaders who undergo training in communication skills can enhance their ability to interact with patients, their families, and healthcare teams. Clear and open communication reduces the chances of medical errors, improves patient understanding, and ensures that patients receive the appropriate care. This can lead to better patient outcomes, such as reduced readmission rates and improved adherence to treatment plans. (Wong & Bates, 2006)

2. **Enhanced Teamwork:** Leadership training often focuses on developing skills in team building, conflict resolution, and fostering a collaborative work environment. When leaders possess these skills, they can create cohesive healthcare teams that work together effectively, leading to improved patient outcomes. High-functioning teams are more likely to provide coordinated and comprehensive care, reducing errors and improving patient safety.

3. **Patient Safety Culture:** Leadership skills training can help leaders establish a culture of patient safety within healthcare organizations. Leaders who prioritize patient safety and create an environment where staff members feel comfortable reporting errors or near misses can lead to proactive identification and resolution of patient safety issues. This can result in a reduction in adverse events, hospital-acquired infections, and medication errors, ultimately improving patient outcomes.

4. **Quality Improvement Initiatives:** Effective leaders with training in quality improvement methodologies can drive initiatives aimed at improving healthcare quality and patient outcomes. By implementing evidence-based practices, monitoring performance metrics, and engaging staff members in quality improvement efforts, leaders can drive positive changes that directly affect patient care and outcomes. (Berwick, 2009)

5. **Staff Engagement and Retention:** Leadership skills training can also contribute to staff engagement and retention. Leaders who trained in motivational techniques, performance feedback, and employee recognition can create a positive work environment that fosters employee satisfaction and job commitment. Engaged and satisfied staff members are more likely to provide high-quality care, leading to improved patient outcomes.

It is important to note that while leadership skills training can have a positive impact on patient outcomes; it is just one aspect of a complex healthcare system. Other factors, such as resource allocation, technology, and clinical expertise, also play significant roles in determining patient outcomes.

2.2 Sector analysis

SRHUH Ragheb Harb University Hospital, a leading healthcare provider in the south, boasts not only a wide range of medical services and skilled staff but also a pioneering continuous training center. This center coordinates internal and external training programs for hospital personnel.

The training center prioritizes needs identified through hospital data, including service volume and, particularly, patient revenue metrics. This data reflects the performance of staff who directly or indirectly affect patient care. As a result, the Training Department prioritizes training for this category, with a particular focus on managers, recognizing their crucial role in staff development and performance improvement.

To focus on this category, the training needs of managers monitored, as training needs studies showed a clear lack of knowledge and skills related to leadership, which experiences show a significant impact on their behavior with employees and thus reflected on patient returns. In 2018, this plan won the confidence of the administration, which ensured the commitment to implement it to include all managers, especially those who work in departments concerned in one way or another in serving the hospital's goals related to patient service.

Effective training hinges on identifying and analyzing training needs. An analysis of these needs revealed a skills gap in communication, decision-making, problem-solving, emotional intelligence (including empathy), and working under pressure (as shown in Table 2.3a).

Furthermore, hospital statistics indicate a rise in certain metrics that suggest a need for improvement in patient outcomes. These metrics include patient safety incidents, postoperative infection rates, patient complaints, and low patient and family satisfaction scores (detailed in Table 0-3).

Table 2.1 Manager's statistics on 2018

Total heads in Hospital	Direct impact on patients outcomes	Submitted to training programs	Missed training programs
85	42	32	10

Table 2.2 Patient outcomes indicator

	Patient fall	Patient satisfaction	SSI	Patient complains
2017	8	88	18	42
2018	12	82	22	57

Accordingly, a training program has been developed that raises the knowledge and skills of leadership managers, provided that its behavioral impact is measured according to the Kirkpatrick model after more than a year of training processes and is re-verified every year.

3. Literature Review

The link between managers' leadership skills and improving overall outcomes in hospitals, especially those related to patients, is a review of a range of studies on this topic:

A. **The relationship between nursing leadership and patient outcomes. (Wong et all, 2017)**

This study discussed the challenges that faces an economic downturn, stressful work environments, upcoming retirements of leaders and projected workforce shortages, implementing strategies to ensure effective leadership and optimal patient outcomes are paramount. However, a gap still exists in what known about the association between

nursing leadership and patient outcomes. The study published English-only research articles that examined leadership practices of nurses in formal leadership positions and patient outcomes selected from eight online bibliographic databases. Quality assessments, data extraction and analysis completed on all included studies.

The Results of the study showed total of 20 studies satisfied inclusion criteria and retained. Current evidence suggests relationships between positive relational leadership styles and higher patient satisfaction and lower patient mortality, medication errors, restraint use and hospital-acquired infections.

The study concluded that the findings document evidence of a positive relationship between relational leadership and a variety of patient outcomes; although future testing of leadership models that examine the mechanisms of influence on warranted outcomes.

B. Importance of Leadership Style towards Quality of Care Measures in Healthcare Settings. (Sfantou et all, 2017)

This study discussed that the effective leadership of healthcare professionals is critical for strengthening quality and integration of care. This study aimed to assess whether there exist an association between different leadership styles and healthcare quality measures. The search performed in the Medline (National Library of Medicine, PubMed interface) and EMBASE databases for the period 2004–2015. The research question that guided this review posed as "Is there any relationship between leadership style in healthcare settings and quality of care?" Eighteen articles found relevant to our research question. Leadership styles found to strongly correlated with quality care and associated measures. Leadership considered a core element for a well-coordinated and integrated provision of care, both from the patients and healthcare professionals.

The study concluded that leadership styles play an integral role in enhancing quality measures in health care and nursing. Impact on health-related outcomes differs according to the different leadership styles, while they may broaden or close the existing gap in health care. Addressing the leadership gap in health care in an evolving and challenging

environment constitutes the current and future goal of all societies. Health care organizations need to ensure technical and professional expertise, build capacity, and organizational culture, and balance leadership priorities and existing skills in order to improve quality indicators in health care and move a step forward. Interpretation of the current review's outcomes and translation of the main messages into implementation practices in health care and nursing settings strongly suggested.

C. The Impact of Leadership Training Programs on Physicians in Academic Medical Centers. (Dyrholm et all, 2013)

Is the third study its purpose was to identify the impact of leadership training programs at academic medical centers (AMCs) on physicians' knowledge, skills, attitudes, behaviors, and outcomes. Method: In 2011, the authors conducted a systematic review of the literature, identifying relevant studies by searching electronic databases, scanning reference lists, and consulting experts. They deemed eligible any qualitative or quantitative study reporting on the implementation and evaluation of a leadership program for physicians in AMCs. Two independent reviewers conducted the review, screening studies, abstracting data, and assessing quality. Results: The authors initially identified 2,310 citations. After the screening process, they had 11 articles describing 10 studies. Three were controlled before-and-after studies, four were before-and-after case series, and three were cross-sectional surveys. The authors did not conduct a meta-analysis because of the methodological heterogeneity across studies. Although all studies were at substantial risk of bias, the highest-quality ones showed that leadership training programs affected participants' advancement in academic rank (48% versus 21%, P=.005) and hospital leadership position (30% versus 9%, P=.008) and that participants were more successful in publishing papers (3.5 per year versus 2.1 per year, P<.001) compared with nonparticipants. Conclusions: The authors concluded that leadership programs have modest effects on outcomes important to AMCs. Given AMCs' substantial investment in these programs, rigorous evaluation of their impact is essential. High-quality studies,

including qualitative research, will allow the community to identify which programs are most effective.

4. Research Framework

4.1   Introduction

In order to describe, quantitatively and qualitatively, the impact of regulation and implementation of IRBs on the conduct of clinical trials and patient safety, the researcher used a mixed methods design incorporating qualitative and quantitative tools and elements.

4.2 Research philosophy

The philosophy of research is rooted in the pursuit of knowledge, evidence-based practice, and continuous improvement in healthcare delivery. It conducted with the goal of understanding how leadership training can positively influence patient care and outcomes within healthcare settings. Several key philosophical principles underpin this type of research:

a. Empiricism

The research based on empirical evidence gathered through rigorous scientific methods. Data collected through observations, surveys, experiments, or other appropriate research methodologies to ensure objectivity and accuracy.

b. Pragmatism:

The research aims to address real-world problems and practical challenges faced in healthcare organizations. It seeks to find effective recommendations of solutions and strategies that can implemented to improve patient care and outcomes.

c. Ethical considerations

Ethical principles guide the research process, ensuring that the rights, safety, and privacy of patients and participants respected. Researchers must obtain informed consent, protect confidentiality, and conduct the study with integrity.

d. Holism

Leadership training research often takes a holistic approach to understand the interconnectedness of various factors influencing patient outcomes. It considers the influence

of leadership styles, team dynamics, organizational culture, and external factors on healthcare performance.

e. Continuous improvement

The research is working to create or empower an ongoing process. As new evidence emerges, it informs and shapes future leadership training programs and patient care strategies, leading to a cycle of continuous improvement.

f. Patient-centeredness

Patient outcomes remain the central focus of the research. The ultimate goal is to enhance the quality of patient care, safety, and overall experience through effective leadership training.

g. Generalizability

Researchers strive to ensure that their findings can applied to a broader range of healthcare settings. While acknowledging the uniqueness of each organization, the aim is to identify principles and best practices that can be adapted to various healthcare contexts.

h. Collaboration

Research on the impact of leadership training often involves collaboration between researchers, healthcare practitioners, administrators, and other stakeholders. This multidisciplinary approach ensures that research findings are relevant and applicable to real-world situations.

i. Transparency

The research philosophy emphasizes openness and transparency in the research process. This includes clear reporting of methods, results, and potential biases to enhance the credibility and reproducibility of the findings.

By embracing these philosophical principles, research on the impact of leadership training on patient outcomes can contribute valuable insights to healthcare practice, ultimately leading to improved leadership skills, better patient care, and enhanced health outcomes.

4.3 Research Design

The research intended to collect data in order to assess submission timing, response, and the nature of training process. Quantitative data plays a crucial role in research on the effect of leadership training on patient outcomes for several reasons. Here are some of the benefits of using quantitative data in this context:

Analysis, precision and accuracy, comparisons and Control, standardization, longitudinal Studies, evidence-based decision making, quantifiable impact

The qualitative research aimed to gather an information about clinical research challenges and future recommendation in order to improve the hospital behavior among patient outcomes. The qualitative data in this study collected through open-ended questions and interviews.

Qualitative data can play a crucial role in research on the effect of leadership training on patient outcomes. While quantitative data provides statistical evidence and numerical measurements, qualitative data offers in-depth insights, contextual understanding, and rich descriptions of participants' experiences. Here are some of the benefits of using qualitative data in this type of research:

Exploring the human experience, perspective and attitude, Identifying underlying factors, Contextual understanding, feedback and improvement: Through qualitative data, participants can provide feedback on the training program, allowing researchers to identify strengths and weaknesses. This information can used to refine and improve future iterations of the leadership training, uncovering unexpected outcomes, participant perspectives, gathering the viewpoints of participants and frontline staff through interviews, focus groups, or open-ended surveys can help ensure the research.

4.4 Overview of the Sector / Domain / Organizations

Table 1.1 Overview of the sector and organization

SRH University Hospital	
Sector	Private
Location	Nabatieh
Managers	80
Telephone	00967766799
Number of staff	100
Departments	Nutrition Section, Children section, ER,Diagnostic, Cath lab, Department of daily surgery, Department of Health and Surgery for Male and female

4.5 The sample

Due to the study's focus on a single institution, a non-random sample will employed. This sample will target unit managers who directly or indirectly influence patient outcomes. Human resources data indicates there are 120 department heads, and a job analysis identified 85 whose roles affect patient-related results. Training department records show that 60 of these managers have completed the leadership skills training program within the hospital, while 20 have not. Importantly, both groups continue to perform the same tasks. This design allows for a comparison of performance metrics between the trained and untrained groups during the specified timeframe (end of 2022 and first half of 2023) to assess the program's impact on patient outcomes.
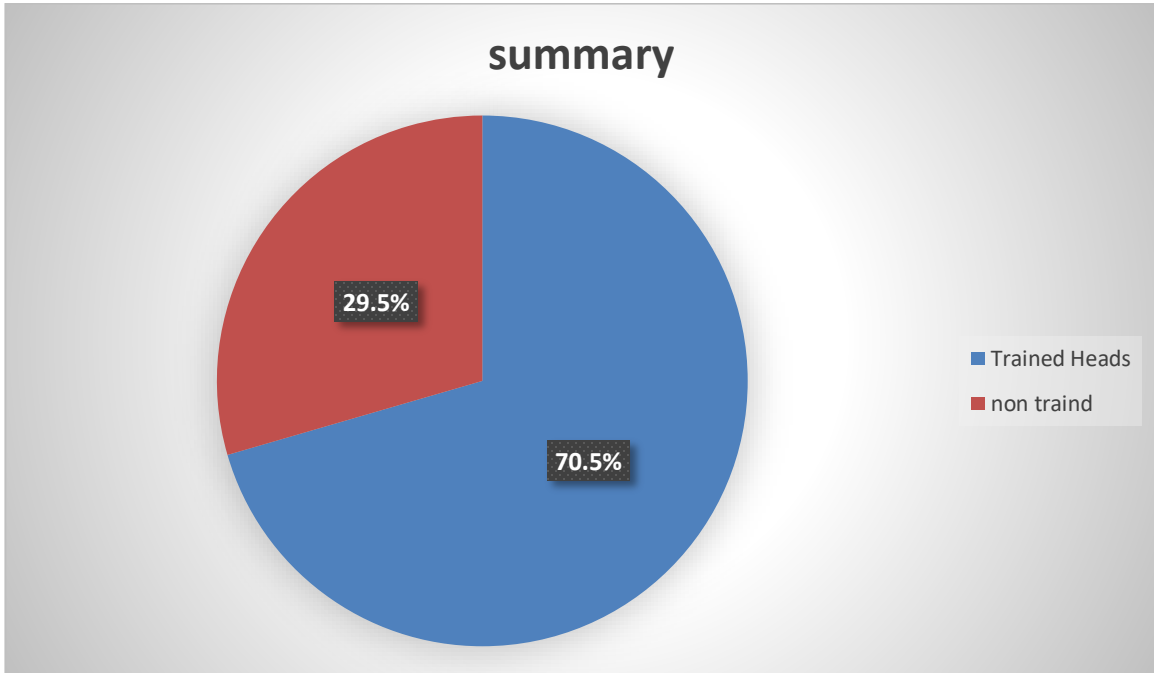
A brief distribution of the sample by trained and non-trained heads with response rate to fill questionnaire described in table below:

Table 3.1 Brief distribution of targeted group

Group	Total	Percentage
All heads in Hospital	120	
Mentioned Heads	85	100
Trained heads	60	70.5
Non trained heads	25	29.5

Figure 2. Brief of distribution of targeted group

4.6 Data Collection and Analysis

The data collected analyzed both quantitatively and qualitatively. The questionnaires treated according to the objective of the study. Tables, graphs and pie charts used to help interpret the data according to the issues analyzed. Qualitative summaries also generated for open-ended responses. The analysis focused on two data sources: respondents' answers and hospital performance data (Appendix A). The respondents' answers compared to performance metrics to assess the impact of the training program. This comparison aimed to determine the extent to which the training improved performance and identify any qualitative differences in performance between trainees and non-trainees. While most department heads likely have some administrative training, the focus here is on training programs specifically offered within the hospital.

4.7 Data Collection Procedures and Instruments

Initially, an introductory letter given to the respondents explaining the reasons and motives behind the research. After approval, the independent researcher used a survey research questionnaire (google form) in English to collect the data required after setting general categories based on literature review and previous studies.

a) Structured items

The questionnaire substantially included an informative coding system with the following categories: the organizational management of IRB committee, policies and procedures, training and IRB member's development, review and consultancy system, informed consent, subject safety, monitoring process, it also had questions related to documentation process. Each participant was required to fill only one questionnaire. The coding system fully divided in table 3.2 below.

Table 3.2 The coding system of the questionnaire

Categorical Distribution Matrix of Questionnaire	
Category/ Coding System	**Related Question(s)**
Demographic Data	Section one
Impact of training on personal experience	Section two, part one
Impact of training on patient outcomes	Section two, part two
Actual performance	Section three.

5. Data Analysis and Results

5.1 Data Description

The database includes 41 employees and 28 variables. In addition, a google form does the data collection when each staff answers a set of questions including personal information (Name, Gender, Job title, Years of experiences...) and information related to their evaluation of the impact of leadership training programs on patient outcomes. Regarding the second part of

questions, the employees divided into two groups. The First one participated to leadership training programs (27 employees) and therefore had to answer 15 questions. The second group was did not participate to leadership Training (14 employees), and the answered a different group of questions consisting of eight questions.

5.2 Description of Variables

Variables described using frequency percentage or graphically using a pie chart.

5.2.1 Univariate Analysis

The sample is made up of 24 Female (59%) and 17 male (41%). The majority of them are head division (46%) and have more than 10 years of experiences (39%). As for the educational level of the participating employees, the most of employees was for those holding a BS degree (54%). In addition, 66% of those employees participated in leadership training.

The percentage of employees participated in leadership programs (66%) is higher than those did not participated on those training programs (34%).
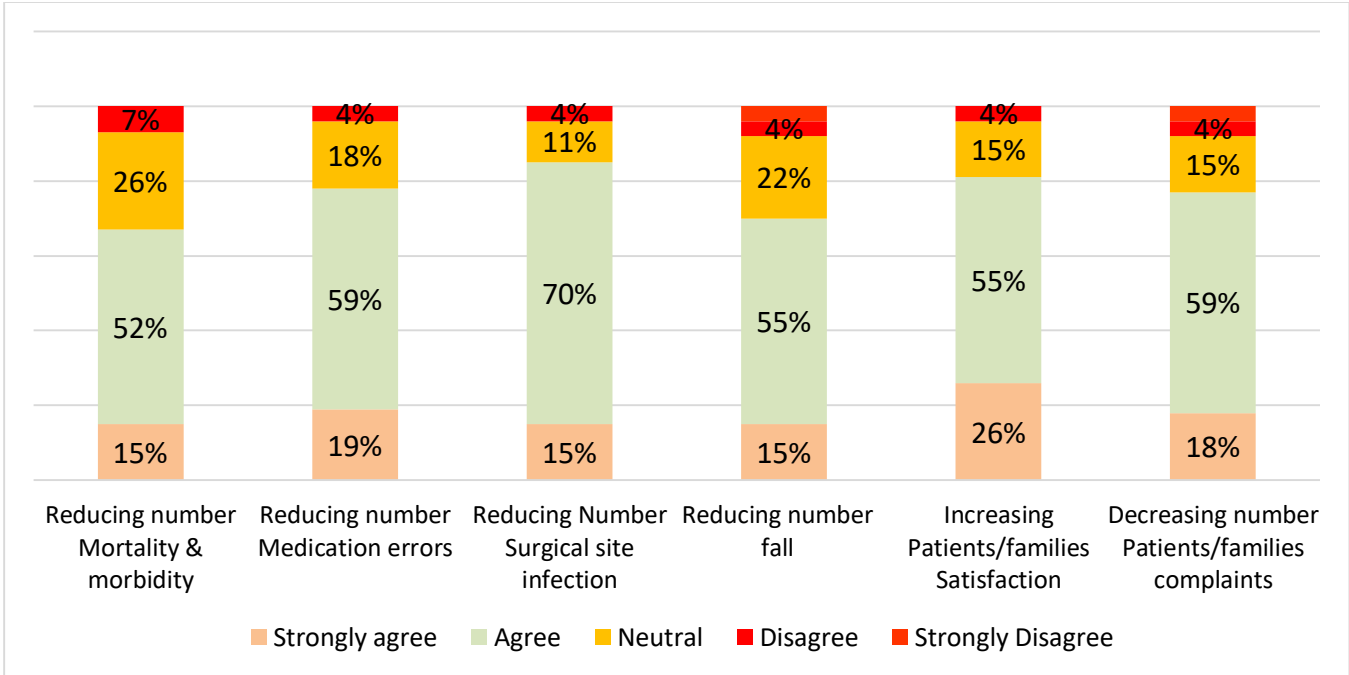
The figure 3 below describes the evaluation of employees undergoing leadership programs (Group I) about the effectiveness of these training in developing their skills that contribute to improving patient outcomes.

Figure 3. Description of variables related to acquired skills (Group I)

Figure 4. Description of variables related to impact on patient outcomes (Group I)
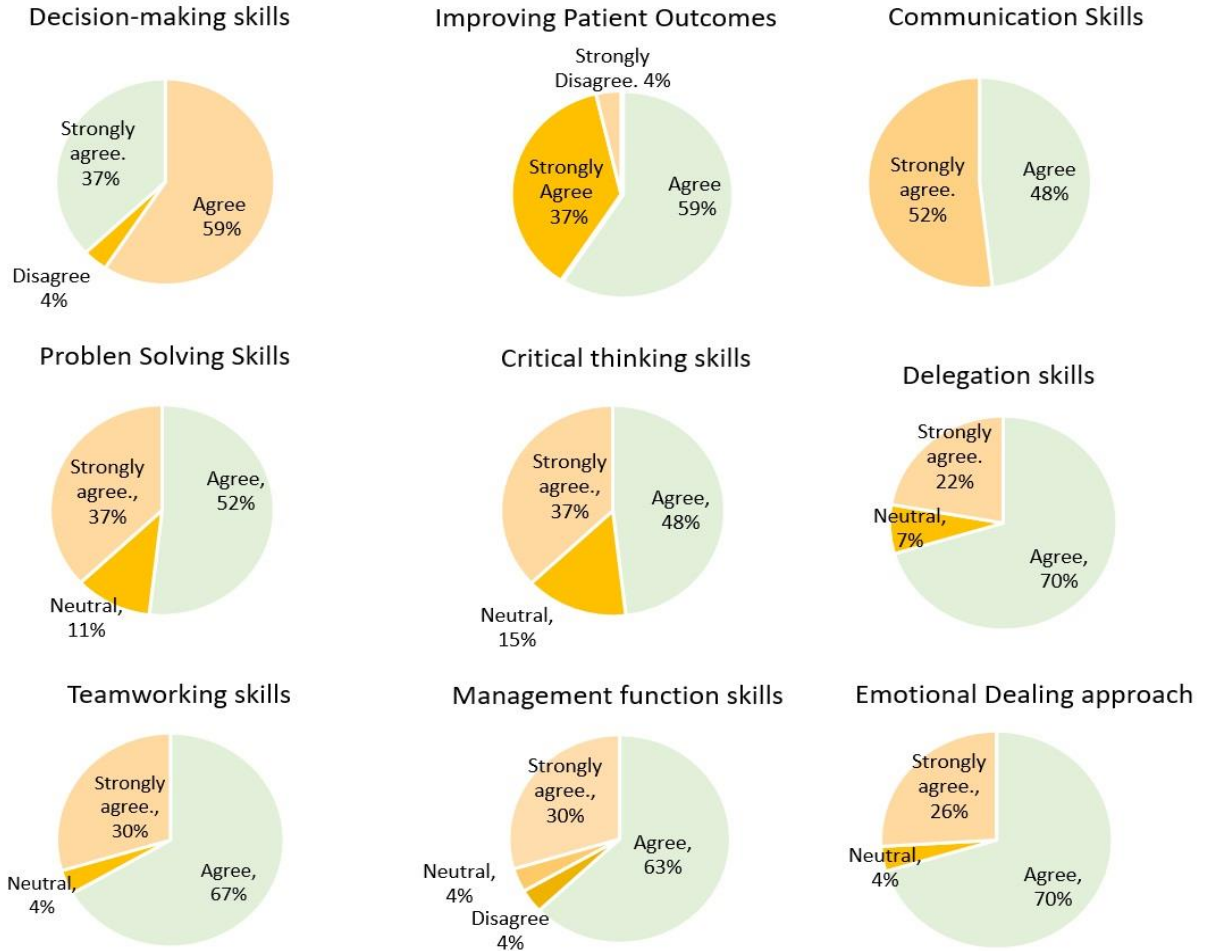
The figure 4 represents the description of some questionnaire variables. They show the evaluation of employees undergoing leadership programs (Group I) about the impact of these training on each type of patient outcomes.

The table 4.1.a below describes the evaluation of employees did not undergoing leadership programs (Group II) about their possessed skills.

In addition, two final questions were asked about the opinion of employees who did not undergo leadership training, and their responses where 100% agree (64% strongly agree, 36% agree), agreeing leadership skills greatly affect patient outcomes. They also agreed that leadership programs are a training need for managers (71% strongly agree, 29% agree).

Table 4.1.a Description of variables related to possessed skills (Group II)

	Communication	Decision making	Critical thinking	Problem Solving	Management Function	Delegation
Very Satisfied			14%		7%	
Satisfied	93%	79%	71%	71%	50%	57%

Neutral		21%	7%	29%	43%	43%
Dissatisfied	7%		7%			

5.2.2 Bivariate analysis

In this section, a bivariate study carried out using the spearman's rho correlation in term to test monotonic correlation between variables. In the first step, we computed questions related to leadership skills into a new variable for the group that underwent leadership programs. We tested the correlation of these new variable named leadership skills and each question related to patient outcomes and the results placed in table 4.2.a.

Table 4.2.a: Correlation between leadership skills and each patient outcomes for (group I) P-value was significant if p < 0.05

		Reducing number mortality& morbidity	Reducing number medication errors	Reducing number surgical site infection	Reducing number fall	Increasing Patient/Families Satisfaction	Decreasing Patients/families Complaints
Leadership Skills	Correlation coefficient	0.548	0.491	0.053	0.468	0.194	0.37
	P-value	0.002	0.005	0.367	0.007	0.166	0.029

Among the variables cited in table 4.2.a, a significant dependence was found between leadership skills and Reducing number of this patient outcomes (mortality & morbidity, medications errors, fall), and we have a significant dependence between leadership skills and decreasing patients/families complaints, according to that their P-value are smaller than 0.05, therefore H0 (independence of variables) to be rejected. Whereas, no significant association between leadership skills and reducing number of surgical site infection or increasing Patients/families satisfaction.

Table 4.2.b: Correlation between leadership skills and patient outcomes

P-value was significant if p<0.05

		Patient outcomes
Leadership Skills	Correlation coefficient	0.418
	P-value	0.030*

In the Second step, we computed questions related to patient outcomes into a new variable (patient outcomes) for the group that underwent leadership programs (group I), then we tested correlation of patient outcomes and leadership skills using spearman's rho test and the results placed in table 4.2.b.

Among the result cited in table 4.2.b, a significant association was found between leadership skills and patient outcomes, according to that their P-value are smaller than 0.05, therefore H0 (independence of variables) to be rejected.

Table 4.2.c: Differences between two groups in having leadership skills and in results of patient outcomes P-value was significant if p<0.05

Test Statistics		
	leadership skills	patient outcome
Mann-Whitney U	115.000	83.000
Wilcoxon W	220.000	461.000
Z	-2.552	-3.276
P-value	0.011*	0.001*

Finally, we tested the differences between the two groups in having leadership skills and in results of patient outcomes using Mann-Whitney U test. The results presented in table 4.2.c.

Among the result cited in table 4.2.c, a significant differences was found between two groups (taking leadership programs, did not taking leadership skills) in having leadership skills and in results of patient outcomes, according to that their P-value are smaller than 0.05, therefore H0 (not have a difference between groups) to be rejected.

6. Conclusions and Recommendations

6.1 Conclusions

Research on the impact of leadership skills training on patient outcomes provides valuable insights into the important role that leadership skills play in the healthcare sector. The findings underscore the positive correlation between effective leadership training and improved patient outcomes.

As evidenced by empirical data and case studies, health professionals who undergo targeted leadership training exhibit improved communication, decision-making and team coordination skills.

This study highlights the importance of investing in leadership development programs for health professionals, as they directly contribute to creating a positive impact on patient care, improved leadership skills not only lead to better organizational performance, but also promote a culture of patient-centered care, ultimately leading to positive patient outcomes. As we progress, it is recommended that healthcare institutions give priority to leadership skills training and integrate them into their professional development programs, this proactive approach not only guarantees a more competent and resilient healthcare workforce, but also contributes to a comprehensive improvement in healthcare quality and patient satisfaction. Further research and longitudinal studies are encouraged to explore the long-term effects and sustainability of leadership training initiatives in various healthcare settings.

Finally, the cultivation of effective leadership in health care is an investment that has the potential to transform the patient experience and improve the overall quality of health care delivery.

6.2 Recommendations

After the collective effort exerted by a research team, where one of our main goals was to achieve sustainable benefit for the public interest, especially in the health field, specifically in

SRH University Hospital, therefore it was necessary to come up with a set of recommendations extracted from our research, which are:

1- Adopting sustainable approaches to link patient outcomes to the skills of managers, which depend primarily on their training.

2- Adopting a training path for leaders depends on accuracy in identifying needs, through implementation, and monitoring the extent of benefit from training processes, here are some recommendations for enhancing leadership skills training in the healthcare sector to improve patient outcomes:

   a) Emphasize Emotional Intelligence (EI).

   b) Promote Effective Communication.

   c) Encourage Collaborative Decision-Making.

   d) Implement Continuous Education.

   e) Stress the Importance of Team Building.

   f) Provide Conflict Resolution Training.

   g) Focus on Patient-Centered Care.

   h) Utilize Simulation and Role-Playing

   i) Encourage a Culture of Continuous Improvement.

   j) Promote Self-Care for Leaders.

3- Encourage student and researcher to adopt researches that clear and meet the major goals of hospitals.

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