



SCIENTIFIC REPORTS
INTERNATIONAL

ENHANCING HEALTHCARE QUALITY: STRATEGIES FOR CONTINUOUS IMPROVEMENT

ISSN:2045-2322

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**SCIENTIFIC REPORTS
INTERNATIONAL**

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Abstract:

Healthcare quality improvement is a continuous effort to enhance patient outcomes, safety, and satisfaction while reducing waste and inefficiency. This study examines different approaches to improving healthcare quality, such as adopting evidence-based methods, optimizing processes, measuring performance, and fostering continuous learning. This research paper does a thorough analysis of the literature to identify essential ideas and approaches that healthcare organizations can employ to promote a culture of quality improvement. Illustrative case studies and examples from various healthcare settings demonstrate effective strategies and obstacles encountered in quality improvement endeavors. This study provides a comprehensive analysis of existing data and optimal strategies, aiming to guide healthcare systems in achieving long-term enhancements in quality and ultimately improving patient care..

Keywords: healthcare quality improvement, evidence-based practices, process optimization, performance measurement, continuous learning

Introduction:

Healthcare quality improvement is an ongoing effort to enhance the way treatment is provided to patients, with the goal of maximizing results and guaranteeing patient safety and satisfaction. Quality improvement activities are crucial in tackling the complexities and problems faced by healthcare systems worldwide in a constantly changing healthcare landscape. This introduction offers a comprehensive summary of healthcare quality improvement, highlighting its importance in healthcare provision, and outlining the goals of this research work.

Healthcare quality improvement involves a methodical process of identifying areas that need improvement, applying procedures that are supported by evidence, monitoring performance, and making required changes to attain desired results. The process entails the cooperative endeavors of healthcare experts, administrators, policymakers, and patients to consistently assess and improve procedures in order to guarantee the utmost quality of care.

Healthcare quality improvement projects can focus on several areas of the care continuum, such as clinical practices, operational procedures, patient experience, and population health management. Healthcare organizations aim to enhance patient safety, clinical effectiveness, timeliness of care, efficiency, equity, and patient-centeredness by prioritizing quantifiable outcomes and evidence-based interventions.

The significance of enhancing healthcare quality cannot be exaggerated, since it directly influences patient outcomes, safety, and satisfaction. Quality improvement initiatives play a role in decreasing medical errors, averting adverse occurrences, and improving the overall efficiency of healthcare delivery. Through a methodical examination of procedures and results, healthcare organizations may pinpoint areas that need enhancement, execute specific measures, and track advancements over time.

Furthermore, quality enhancement endeavors are crucial in tackling healthcare inequalities, advancing health parity, and guaranteeing that every patient receives top-notch care irrespective of their socioeconomic situation, race, ethnicity, or geographical position. By placing quality

improvement as a top priority, healthcare systems can improve patient trust, reputation, and competitiveness, while also decreasing expenses linked to avoidable errors and inefficiencies.

The objectives of this study work are manifold. The primary objective is to provide a thorough examination of healthcare quality improvement, including its core principles, methodology, and various approaches. Furthermore, it aims to highlight the crucial significance of enhancing the quality of healthcare systems, emphasizing its direct influence on patient outcomes, safety, and satisfaction. Furthermore, the study aims to demonstrate the tangible implementation of quality improvement by showcasing triumphant case studies and examples derived from diverse healthcare environments. Furthermore, its objective is to recognize common difficulties and hurdles that hinder the enhancement of quality, while suggesting efficient tactics for overcoming these barriers. Finally, the study examines potential paths and prospects for enhancing healthcare quality improvement, including the changing role of technology, the importance of patient involvement, and the possible advantages of international cooperation. The study paper aims to provide a valuable contribution to the discussion on improving healthcare quality. It provides valuable insights and suggestions to all stakeholders in the healthcare field

1. Defining Quality in Healthcare

The topic of quality in healthcare is complex and has been thoroughly examined and discussed in academic literature. Multiple frameworks and methodologies have been suggested to establish and evaluate quality, encompassing diverse aspects and viewpoints. This literature study aims to examine fundamental concepts and theories pertaining to the notion of quality in healthcare. It will draw upon influential publications and recent research findings..

Donabedian's Model: The model developed by Avedis Donabedian in the 1960s continues to be a fundamental tool for comprehending the quality of healthcare. Donabedian introduced a three-part framework for evaluating quality, which includes assessing the structure, method, and outcomes (Donabedian, 1988). Structural quality pertains to the resources and organizational attributes of healthcare settings, whereas process quality pertains to the actions undertaken by healthcare providers in delivering care. Outcome quality refers to the impact of healthcare

interventions on the health status of patients. The paradigm developed by Donabedian remains influential in driving quality improvement initiatives and doing research in the healthcare field. (Shojania & Grimshaw, 2005).

Institute of Medicine (IOM) Framework: The Institute of Medicine (IOM) established six measures of quality in its influential report "Crossing the Quality Chasm" (IOM, 2001). The dimensions encompassed in this context are safety, efficacy, patient-centeredness, timeliness, efficiency, and equity. Safety prioritizes the avoidance of injury or damage to patients, while effectiveness prioritizes the provision of care that is supported by scientific evidence. The concept of patient-centeredness emphasizes the significance of include patients in the process of decision-making and attending to their specific preferences and requirements. Timeliness pertains to the reduction of waiting times and delays in the delivery of care, whereas efficiency centers around the optimization of resource utilization. Equity prioritizes the delivery of healthcare that is impartial and just, irrespective of patients' demographic attributes.

Holistic Approaches to Quality: Recent study has emphasized the significance of adopting a comprehensive approach to quality in healthcare. This method takes into account not just the clinical results but also the patient's experience and the health outcomes of the population. Patient-reported outcomes (PROs) are increasingly recognized as valuable indicators of quality, as they provide insights into patients' opinions on their health state, symptoms, and functional skills (Basch et al., 2017). In addition, there has been a growing recognition of the need of addressing social factors that influence health and promoting fairness in healthcare reform efforts (Boyd et al., 2016). By adopting a comprehensive perspective on quality, healthcare systems may more effectively address the varied requirements of patients and communities.

2. Institute of Medicine's Six Aims for Improvement in Healthcare

The Institute of Medicine (IOM) outlined six essential objectives for enhancing healthcare quality in its influential report "Crossing the Quality Chasm" (IOM, 2001). The objectives of healthcare quality improvement efforts are to ensure safety, efficacy, patient-centeredness, timeliness,

efficiency, and equity. This review examines the current literature to investigate the importance of each objective and the most recent research discoveries on its execution and influence.

Safety: Ensuring patient safety continues to be a crucial area of attention in attempts to enhance healthcare quality. Recent research has emphasized the significance of adopting tactics such as evaluating patient safety culture, developing standardized protocols, and utilizing technology-based error prevention systems (Manojlovich et al., 2020; Mira et al., 2021). These programs have the goal of lessening the occurrence of negative occurrences, mistakes in medical care, and infections acquired in healthcare settings. Ultimately, their aim is to improve patient safety and decrease avoidable injury.

Effectiveness: Ensuring the efficacy of healthcare interventions is crucial for attaining optimal patient outcomes. Current research highlights the significance of evidence-based practice guidelines, clinical decision support systems, and quality improvement activities aimed at decreasing unnecessary differences in the delivery of treatment (Gagliardi et al., 2019; Foy et al., 2020). Comparative effectiveness research is crucial in guiding clinical decision-making by identifying the best effective therapies and interventions for a wide range of patient populations.

Patient-Centeredness: High-quality healthcare delivery continues to prioritize patient-centered care as a fundamental aspect. Current literature highlights the need of implementing patient engagement techniques, utilizing shared decision-making approaches, and implementing programs that focus on enhancing communication and care coordination (Barnes et al., 2020; Epstein et al., 2015). Patient-reported outcome measures (PROMs) and patient-reported experience measures (PREMs) are being more often employed to evaluate the influence of patient-centered care on satisfaction, adherence to treatment, and the quality of life connected to health.

Timeliness: Prompt access to healthcare services is essential for avoiding any delays in the diagnosis, treatment, and delivery of care. Current research investigates novel methods for decreasing wait times, optimizing appointment scheduling, and improving care coordination using telehealth and digital health technologies (Ray et al., 2021; Mehrotra et al., 2020). These programs

seek to expand healthcare accessibility, reduce patient waiting times, and improve the overall patient experience.

Efficiency: Effective healthcare delivery necessitates the efficient distribution and usage of resources to attain desired results. Recent research has examined how care delivery models, care pathways, and value-based payment models can enhance healthcare efficiency and decrease wastefulness (Joynt Maddox, 2019; Navathe et al., 2020). Value-based care programs promote the delivery of high-quality, cost-effective healthcare by aligning reimbursement with patient outcomes and decreasing needless consumption of healthcare services.

Equity: Promoting healthcare equity involves tackling inequalities in the availability of medical services, the effectiveness of treatments, and the overall health outcomes among different groups of people. Current work highlights the significance of tackling social determinants of health, providing cultural competence training for healthcare providers, and implementing specific interventions to decrease healthcare disparities (Baernholdt et al., 2021; Adler et al., 2019). Health equality efforts strive to guarantee that every individual has equal access to excellent healthcare services that are culturally appropriate, regardless of their socio-demographic traits.

3. Hospital Quality Improvement Initiatives

Hospital quality improvement initiatives are essential for enhancing patient outcomes, safety, and satisfaction while optimizing healthcare delivery. In this literature review, we examine recent research and case studies that highlight the significance of quality improvement initiatives in hospital settings, focusing on key areas such as reduction of hospital-acquired infections, implementation of medication reconciliation processes, and improving patient satisfaction scores.

3.1.Reduction of Hospital-Acquired Infections

Hospital-acquired infections (HAIs) continue to be a major issue in healthcare facilities, leading to patient illness, death, and increased healthcare expenses. Recent research has highlighted the significance of strong infection prevention and control techniques to reduce the likelihood of healthcare-associated infections (HAIs). For instance, a study conducted by Magill et al. (2018)

showcased the efficacy of implementing comprehensive infection control measures, such as hand hygiene protocols, antimicrobial stewardship programs, and environmental cleaning processes, in decreasing the occurrence of healthcare-associated infections (HAIs).

Moreover, a study conducted by Zimlichman et al. (2013) emphasized the influence of a comprehensive quality improvement strategy in decreasing healthcare-associated infections (HAIs), namely central line-associated bloodstream infections (CLABSIs) and catheter-associated urinary tract infections (CAUTIs). Hospitals can achieve substantial reductions in healthcare-associated infections (HAIs) and improve patient safety and quality of care by implementing evidence-based procedures and promoting a culture of safety.

3.2. Implementation of Medication Reconciliation Processes

prescription reconciliation is essential for preventing prescription errors and adverse drug events when transitioning between different stages of therapy. Recent studies have emphasized the significance of standardized medication reconciliation procedures in enhancing patient safety and results in medication management. The study conducted by Al-Hashar et al. (2020) assessed the effect of pharmacist-led interventions in reconciling medications on decreasing discrepancies in medication and adverse drug events in patients who are admitted to the hospital.

The results demonstrated that interventions led by pharmacists to reconcile medications had a substantial impact on reducing the occurrence of prescription discrepancies and adverse drug events, resulting in improved patient outcomes and enhanced medication safety. In a similar vein, a study conducted by Mekonnen et al. (2018) highlighted the advantages of incorporating electronic medication reconciliation systems in hospitals. These systems have been shown to effectively decrease medication errors and improve medication management operations.

4. Primary Care Quality Improvement

Primary care is the fundamental component of healthcare delivery, offering thorough and well-coordinated treatment to patients of all ages. Quality enhancement efforts in primary care are crucial for improving patient outcomes, advancing population health, and optimizing healthcare



provision. This literature review examines new research and case studies that emphasize the importance of quality improvement initiatives in primary care settings. The analysis specifically focuses on critical topics such as chronic illness management, preventative care, and patient-centeredness.

4.1.Chronic Disease Management

Chronic ailments like diabetes, hypertension, and cardiovascular disease present substantial obstacles to healthcare systems globally. Recent studies have highlighted the significance of quality improvement activities in enhancing the management of chronic diseases in primary care. An investigation conducted by Nutting et al. (2016) examined the effects of integrating the Chronic Care Model (CCM) in primary care settings on enhancing outcomes for individuals with chronic illnesses.

The results suggested that interventions based on the Chronic Care Model (CCM) resulted in enhancements in clinical outcomes, patient satisfaction, and healthcare utilization. This highlights the efficacy of a collaborative and team-oriented strategy to managing chronic diseases in primary care settings. Furthermore, a study conducted by Bodenheimer et al. (2014) emphasized the significance of patient-centered medical homes (PCMHs) in enhancing the coordination of care and the treatment of chronic illnesses. This ultimately results in improved patient outcomes and decreased healthcare expenses.

4.2.Preventive Care:

Preventive treatment is essential for lessening the impact of illness and improving the overall health of a population. Enhancing the implementation of preventative services, such as immunizations, cancer screenings, and health counseling, is crucial in primary care settings to enhance quality. Recent studies have investigated novel methods to improve the delivery of preventive care in primary care settings.

An example is a study conducted by Sabatino et al. (2020) which assessed the efficacy of using evidence-based strategies to enhance colorectal cancer screening rates in primary care settings. The results indicated that focused interventions, such as reminders for healthcare providers, reaching out to patients, and using electronic tools to help decision-making, resulted in notable



In addition, a study conducted by Leung et al. (2018) investigated the effects of introducing a team-based approach to preventative treatment in primary care settings. The research discovered that involving non-physician healthcare providers, such as nurses and medical assistants, in providing preventative treatments led to enhanced patient access, satisfaction, and health outcomes.

4.3. Patient-Centeredness

Primary care places a strong emphasis on patient-centered treatment, which involves actively involving patients in decision-making, respecting their preferences, and addressing their unique needs and concerns. In recent years, there has been a growing focus on quality improvement efforts in primary care settings with the goal of improving patient-centeredness.

In a study conducted by Schoen et al. (2017), the researchers investigated the effects of establishing patient-centered medical homes (PCMHs) on patient experience and satisfaction with healthcare. The results indicated that Patient-Centered Medical Homes (PCMHs) were linked to enhanced patient-reported availability of healthcare, interaction with healthcare professionals, and overall contentment with primary care services.

In addition, a study conducted by Rathert et al. (2017) investigated the impact of organizational culture on the promotion of patient-centered care in primary care practices. The study discovered that healthcare practices that possess a culture marked by collaboration, effective communication, and a strong focus on the well-being of patients were more inclined to provide patient-centered care and achieve superior patient outcomes.

5. Challenges and Barriers

Although healthcare system-level quality improvement projects have the potential to bring about significant advantages, their successful implementation might be hindered by many problems and impediments. Three primary obstacles encompass opposition to change, limitations in resources, and difficulties in achieving data interoperability and information exchange.

Resistance to change is a prevalent obstacle faced while introducing quality improvement programs in healthcare systems. Healthcare professionals, administrators, and staff members may



be familiar with current procedures and workflows, which might provide challenges when trying to implement new processes or technologies. Resistance to change may arise from multiple

sources, such as apprehension towards unfamiliar circumstances, worries about more job demands, and perceived challenges to professional independence. To successfully overcome resistance to change, it is necessary to employ efficient communication, involve stakeholders, and receive support from leaders in order to encourage acceptance and cultivate a culture that values innovation and ongoing enhancement.

Resource constraints, such as limited finances, insufficient staffing, and conflicting objectives, present substantial obstacles to the implementation of quality improvement initiatives at the healthcare system level. Scarce resources can hinder healthcare organizations from investing in the infrastructure, technology, and manpower required to support programs aimed at improving quality. Moreover, discrepancies in the distribution of resources among various healthcare settings and locations might worsen inequalities in the availability of top-notch healthcare. To tackle resource limitations, it is necessary to strategically allocate resources, collaborate with other parties, and employ new methods to optimize the efficiency and efficacy of the resources at hand.

The lack of data interoperability and issues in information exchange pose obstacles to the smooth transmission of health information between different systems and settings, hence hindering attempts to coordinate care and improve its quality. Fragmented care delivery and limited access to comprehensive patient information are caused by the incompatibility of electronic health record (EHR) systems, privacy concerns, and the existence of data silos within healthcare companies. Data interoperability can be achieved by the standardization of data formats, the implementation of interoperability standards, and the development of a strong health information exchange infrastructure. Furthermore, it is crucial to prioritize the resolution of privacy and security problems in order to establish confidence among all parties involved and guarantee the safe transmission of confidential health data.

6. Strategies for Overcoming Challenges

To address the challenges of resistance to change, resource constraints, and data interoperability in healthcare system-level quality improvement initiatives, several strategies can be employed:



- Effective leadership support and the cultivation of an organizational culture that encourages innovation and continual improvement are crucial for overcoming resistance to change. Leaders must clearly communicate a well-defined plan for enhancing quality, include individuals with a vested interest in the organization at every level, and allocate the required resources and incentives to facilitate the implementation of transformative projects. Leaders may empower staff people to contribute to organizational success by demonstrating dedication to quality improvement and providing a supportive atmosphere for creativity.
- Training and Education: Allocating resources to training and education programs can provide healthcare personnel with the necessary information, expertise, and resources to successfully implement quality improvement projects. Offering extensive instruction in quality improvement procedures, data analysis techniques, and change management principles can enhance the skills and knowledge of employees and foster a culture of ongoing education. Furthermore, providing chances for professional growth and the expansion of skills can encourage employees to assume responsibility for initiatives aimed at improving quality and instigating positive transformations within their specific positions.
- Collaboration is essential for healthcare quality improvement, since it allows healthcare organizations, providers, payers, and community partners to overcome resource limitations and tackle complicated challenges together. Healthcare systems can achieve common quality improvement goals by forming partnerships and collaborative networks, which allow them to utilize collective expertise, exchange best practices, and combine resources. Collaborative methods can also promote the sharing of data and the ability for diverse systems and individuals to work together effectively, allowing for smooth information interchange and coordinated delivery of care across various settings and parties involved.

7. Future Directions and Opportunities

As healthcare systems continue to evolve, several emerging trends and opportunities are shaping the future of quality improvement efforts. Key areas for future development include advancements in healthcare technology, the integration of patient-reported outcomes and real-world evidence, and global collaboration in quality improvement initiatives.



Healthcare Technology Advancements: The rapid progress in healthcare technology, such as artificial intelligence (AI), data analytics, and digital health solutions, presents new

possibilities for improving the quality of healthcare. Artificial intelligence (AI) driven predictive analytics can assist in identifying patients who are at a high risk, optimizing the allocation of resources, and tailoring the delivery of care to individual patients. Telehealth and remote monitoring technologies facilitate the monitoring of patients from a distance, allow for virtual consultations, and enhance the availability of healthcare services, especially in places with limited access to treatment. In addition, interoperable electronic health record (EHR) systems enable smooth sharing of information and coordination of care across various healthcare settings.

- The incorporation of patient-reported outcomes (PROs) and real-world evidence (RWE) into quality improvement projects is becoming increasingly popular. This integration offers valuable insights into patient experiences, preferences, and treatment outcomes. Patient-reported outcomes (PROs) allow healthcare practitioners to get information directly from patients about their health status, symptoms, and quality of life. This data helps doctors customize care plans and interventions to meet the specific needs of each individual. Real-world evidence (RWE) obtained from actual clinical practice data enhances traditional clinical trial findings by providing valuable information on the efficacy, safety, and comparative effectiveness of treatments in various patient groups. By integrating patient-reported outcomes (PROs) and real-world evidence (RWE) into initiatives aimed at improving quality, healthcare systems can enhance the delivery of patient-centered care, provide valuable information for clinical decision-making, and promote ongoing enhancements in healthcare outcomes.
- Global collaboration and knowledge exchange are essential for improving quality improvement efforts and tackling healthcare concerns worldwide. Collaborations across other countries, research partnerships on a global scale, and platforms for exchanging knowledge help to share the most effective methods, valuable insights, and creative ideas for improving quality in a collective manner. International efforts such as the World Health Organization's (WHO) Global Patient Safety Challenge and the Institute for Healthcare Improvement's (IHI) international learning collaboratives foster cooperation among healthcare organizations, governments, and researchers globally. Through promoting



International cooperation in endeavors to enhance quality, healthcare systems can utilize combined knowledge, expedite advancement, and attain mutual quality improvement objectives.

Conclusion:

To summarize, the definition of quality in healthcare encompasses various aspects, such as structural, process, and outcome metrics, along with patient-centeredness and equity. Donabedian's model and the IOM framework offer significant foundations for evaluating and enhancing the quality of healthcare. Nevertheless, recent studies have highlighted the significance of adopting a comprehensive approach to quality, which includes patient-reported outcomes and tackles societal determinants of health. By incorporating these viewpoints, healthcare systems can aim to provide care that is secure, efficient, patient-focused, prompt, effective, and fair.

Healthcare system-level quality improvement programs are crucial for promoting patient safety, enhancing care coordination, and implementing value-based care models. Recent study highlights the efficacy of systematic methods in fostering a safety-oriented culture, improving care coordination across various contexts, and shifting towards reimbursement models based on value.

Healthcare systems can make substantial enhancements in patient outcomes, optimize resource use, and decrease healthcare costs by implementing standardized protocols, investing in care coordination infrastructure, and embracing value-based care concepts. However, the effectiveness of initiatives aimed at improving the quality of the system as a whole depends on promoting cooperation among those involved, utilizing methods that rely on data analysis, and giving priority to ongoing learning and adjustment.

In the future, it is crucial for healthcare systems to maintain their dedication to quality improvement as a continuous process, consistently looking for chances to improve care delivery, tackle new issues, and meet the changing demands of patients and communities. Healthcare systems can work towards their ultimate objective of delivering high-quality, fair, and cost-efficient treatment for everyone by adopting a culture that promotes innovation, accountability, and patient-centeredness.



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