The Role of Quality in Improving Health Systems: A Review

Mohammad Ali Almiftah[1], Eshraq Talal Bakhsh[2], Rahmah Muith Alsulami[3], Ghadeer Ali Alzahir[4], Hatem Mohammed Alobairi[5], Amani Ali Alhejji[6], Nouf Abdulrahman Alsaadi[7], Lujain Ali Alzahir[8], Zainab Ameen Alshakhouri[9], Eman Abdulaziz Alaradi[10], Khirya Mohammed A Alalshaikh[11], Hanan Mansour Alzahrani[12], Entesar Ahmed Ali Al Sulies[13], Khulod Nawaf Alotaibi[14], Ahmed Mohammed Albadan[15]

Abstract

The fundamental imperative of modern healthcare systems is the persistent delivery of high-quality services, which is intrinsically linked to improved patient outcomes and systemic efficiency. Sustained global challenges, however, necessitate a critical examination of quality's multifaceted role in health system improvement, particularly amidst technological advancements and evolving patient expectations. This review was conducted to synthesize current academic discourse on the role of quality in enhancing health systems, focusing specifically on conceptualizations of quality, the impact of various quality improvement initiatives, and the emerging challenges and opportunities, such as those presented by Artificial Intelligence (AI). Major findings indicate that quality is conceptually diverse, encompassing patient-centered measures like subjective well-being and therapy adherence, alongside organizational factors such as High Reliability Organization (HRO) principles and organizational culture. Furthermore, accreditation, Continuous Quality Improvement (CQI) programs, and the adoption of AI-driven tools demonstrate significant, yet variable, positive effects on service quality and patient satisfaction. Critically, challenges persist in managing resource constraints and addressing the potential negative impact of privatization on care quality. Recommendations underscore the need for integrated, patient-centric quality metrics, robust leadership for quality initiatives, and strategic investment in AI and distributed systems to overcome existing barriers. In conclusion, the evidence strongly supports a holistic, continuously managed approach to quality as the bedrock for effective health system reform, necessitating a paradigm shift towards proactive, data-informed, and culturally embedded quality assurance for sustainable improvement and enhanced global health security.

Keywords: *Healthcare Quality, Health Systems, Quality Improvement, Patient Safety, Artificial*

[1] General Practitioner Aldhahya Primary Health Center

[2] Midwife Technician King Abdulaziz Hospital Al Mahjar Health Center

[3] Health Assistant/Health Security Ibn Sina Hospital For Extended Care

[4] Specialist-Radiological Technology Maternity And Children's Hospital In Al-Ahsa

[5] X-Ray Technician Al Haram Hospital

[6] Health Care Security Assistant West Unaizah Phcc

[7] Health Care Security Assistant Dr.Lolwah Alnaeem Phcc

[8] Physiotherapy.King Khalid Hospital

[9] Hospital Administration (Health Informatics) Materanity And Children Hospital Damam

[10] Midwife Mch Dammam

[11] Specialist – Health Education King Khalid University Hospital

[12] Health Education King Khalid University Hospital

[13] Nurse Technicain Primary Health Center

[14] Pharmacy Specialist Compliance Assist Administration , Compliance Third West Office , Alduwadimi ,Saudi Arabia

[15] Health Security Prince Mohammad Bin Fahd Hospital

Intelligence, Health Management.

Introduction

The global landscape of healthcare is undergoing a relentless transformation, driven by demographic shifts, escalating chronic disease burdens, and rapid technological advancements (Rauf et al., 2025). Within this evolving environment, the pursuit of quality in healthcare is not merely an optional aspiration but a non-negotiable imperative for effective and sustainable health systems worldwide (Ali et al., 2024). A foundational understanding of quality in healthcare extends beyond merely clinical competence; it encompasses the multifaceted dimensions of patient safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity (Endalamaw et al., 2024). This comprehensive view acknowledges that high-quality care is intrinsically linked to improved population health outcomes, reduced resource wastage, and enhanced patient and provider experiences (Lee et al., 2025). The inherent complexity of modern health systems, characterized by intricate processes and interdependencies, makes a systematic focus on quality improvement an essential management strategy to mitigate risks and ensure reliable service delivery (Oster & Braaten, 2025).

The concept of healthcare quality has been extensively explored, yet its definition remains dynamic, reflecting the different perspectives of stakeholders (Hannawa et al., 2022). Health professionals and patients often prioritize distinct aspects of quality, suggesting a need for a nuanced framework that integrates both clinical efficacy and experiential elements (Hannawa et al., 2022). For example, patient subjective well-being is increasingly recognized as a vital metric for evaluating the quality of healthcare services, moving beyond traditional, purely clinical indicators (Lee et al., 2025). This expansion of the quality concept aligns with the growing emphasis on patient engagement, which is documented as having a substantial impact on the overall quality of care delivery and outcomes (Marzban et al., 2022). Furthermore, ensuring optimal therapy adherence among patients is critical, as it directly influences clinical outcomes, manages healthcare costs more effectively, and significantly enhances the patient's overall quality of life (Religioni et al., 2025). The delivery of quality healthcare is, therefore, a deeply human-centric endeavor, requiring both technical excellence and compassionate, responsive care (Kamalasanan et al., 2024).

Moving to a more specific focus, the mechanisms and strategies employed to achieve and sustain high quality are a major area of scholarly inquiry. Continuous Quality Improvement (CQI) initiatives, for instance, represent structured approaches designed to systematically improve healthcare processes and outcomes over time (Endalamaw et al., 2024). These models, encompassing various tools and methodologies, are crucial for adapting to the ever-changing demands and challenges faced by health systems globally (Endalamaw et al., 2024). Relatedly, the implementation of Quality Management Systems (QMS) is a cornerstone for embedding quality principles into the organizational structure, offering frameworks that guide continuous improvement efforts (Rawshdeh et al., 2024). Expert perspectives highlight specific factors that facilitate or impede the

successful implementation of QMS, demonstrating the importance of organizational context and leadership (Rawshdeh et al., 2024).

A key organizational approach is the adoption of the High Reliability Organization (HRO) model, particularly in high-risk healthcare settings (Oster & Braaten, 2025). HRO principles focus on minimizing errors and ensuring safety even in complex, unpredictable environments, offering a robust framework for improving patient safety and quality across the health system (Oster & Braaten, 2025). Another critical organizational factor influencing quality is the underlying organizational culture, which can either support or undermine sustainability and job satisfaction, ultimately affecting the quality of service provided (Hoxha et al., 2024). When organizational culture prioritizes quality, it creates an environment conducive to continuous improvement and innovation (Hoxha et al., 2024).

The role of external oversight and standardization, such as hospital accreditation, is also a significant topic, with evidence suggesting that accreditation can positively influence the quality of care provided by healthcare institutions (Hussein et al., 2021). By providing a structured mechanism for self-assessment and external validation, accreditation promotes adherence to established quality standards, thereby driving systematic improvements in various aspects of service delivery (Hussein et al., 2021). However, the impact of such initiatives can be variable and is dependent on the context and commitment of the accredited organization (Hussein et al., 2021).

The challenges to achieving high-quality healthcare are substantial and require focused attention. Resource constraints are a pervasive barrier, especially in low-resource settings, making it difficult to fully implement necessary quality improvements (Sharma & Cotton, 2023). Overcoming these barriers requires innovative strategies that reconcile financial limitations with the imperative for quality care (Sharma & Cotton, 2023). Moreover, the shifting landscape of healthcare financing, including increasing privatization, introduces potential risks to the quality of care delivered (Goodair & Reeves, 2024). Research indicates that changes in ownership and funding models must be carefully monitored to ensure that cost-saving measures do not lead to a degradation of care quality for the population (Goodair & Reeves, 2024). Similarly, the perceived quality of care is also shaped by factors such as the local healthcare environment and patient characteristics, as evidenced by studies examining determinants of patient-perceived primary healthcare quality in different settings (Servetkienė et al., 2023; Anufriyeva et al., 2022).

In the contemporary era, the emergence of advanced technology presents both unprecedented opportunities and unique challenges for quality enhancement. Artificial Intelligence (AI) and distributed systems are being heralded as tools with the potential to revolutionize healthcare quality, offering new capabilities for diagnosis, treatment planning, and operational efficiency (Aminizadeh et al., 2024). Specifically, generative AI is emerging as a powerful Virtual Healthcare Assistant, promising to enhance patient care quality through personalized support and information provision (Samala & Rawas, 2024). Yet, the integration of AI, particularly generative AI, into clinical practice also

raises critical concerns regarding patient safety, data integrity, and the ethical responsibility inherent in these sophisticated systems (Howell, 2024). These technological disruptions require careful evaluation to harness their benefits while mitigating potential risks to quality and safety (Aminizadeh et al., 2024). Another important area involves the use of virtual consultations between primary and specialized care, which is being investigated for its potential to improve healthcare quality across various domains (Marco-Ibáñez et al., 2023).

Given the critical importance, complex nature, and evolving challenges associated with healthcare quality, a synthesis of the current state of knowledge is essential for guiding future research, policy, and practice. A comprehensive review is necessary to consolidate findings regarding the conceptual frameworks of quality, the effectiveness of various improvement initiatives (including technological adoption), and the critical barriers and facilitators shaping the trajectory of quality enhancement in health systems. The purpose of this review is to evaluate and synthesize the current academic literature on the role of quality in improving health systems, identifying key thematic areas, assessing the impact of established and nascent quality interventions, and illuminating future research directions.

Statement of the Problem

Despite decades of concerted global effort and significant investment in quality improvement initiatives, the persistent challenges related to consistent, high-quality healthcare delivery remain a critical global concern, creating a pressing need for a comprehensive scholarly review (Endalamaw et al., 2024; Rauf et al., 2025). The gap between the theoretical ideal of universally high-quality care and the reality of variable performance across diverse health systems highlights a significant and ongoing research problem (Ali et al., 2024). Critically, while the conceptualization of healthcare quality has expanded to include patient-centric metrics like subjective well-being and therapy adherence, the effective integration and measurement of these diverse dimensions within existing quality management frameworks remain problematic (Lee et al., 2025; Religioni et al., 2025). Traditional measures often fall short of capturing the true patient experience and the holistic impact of care, which necessitates a review to synthesize how new, multidimensional definitions of quality can be practically applied and evaluated (Hannawa et al., 2022; Marzban et al., 2022).

A fundamental challenge lies in the inconsistent implementation and impact of established quality improvement strategies across different contexts (Gage et al., 2022; Endalamaw et al., 2024). For instance, while Continuous Quality Improvement (CQI) and High Reliability Organization (HRO) models are theoretically sound frameworks for system-wide enhancement, their on-the-ground application often encounters significant barriers, including insufficient management support, poor organizational culture, and a lack of necessary resources (Endalamaw et al., 2024; Oster & Braaten, 2025; Hoxha et al., 2024). Furthermore, the effectiveness of external mechanisms, such as hospital accreditation, is debated, with evidence of its impact on actual care quality being mixed and context-dependent (Hussein et al., 2021). The varying reported outcomes and the

existence of significant facilitators and barriers to Quality Management Systems (QMS) implementation point to a persistent research gap concerning the contextual factors that truly drive successful quality transformation (Rawshdeh et al., 2024). A focused review is thus necessary to critically evaluate the evidence base for these interventions and distill best practices in management and leadership for healthcare quality (Enahoro et al., 2024).

Moreover, the confluence of persistent systemic constraints and emerging technological disruptions presents a complex, unresolved problem (Sharma & Cotton, 2023; Aminizadeh et al., 2024). Resource constraints remain a formidable barrier to quality improvement, particularly in resource-limited settings where innovative yet practical solutions are urgently needed to reconcile constrained budgets with the high demands of quality care (Sharma & Cotton, 2023). Simultaneously, the rapid introduction of disruptive technologies, such as Artificial Intelligence (AI) and generative AI, into healthcare introduces novel opportunities alongside substantial, yet under-explored, challenges regarding patient safety, ethical governance, and the maintenance of care quality (Aminizadeh et al., 2024; Howell, 2024; Samala & Rawas, 2024). Specifically, the inherent risks associated with data integrity and the responsible application of sophisticated algorithms in high-stakes clinical decision-making necessitate an urgent and critical synthesis of the current academic discourse on AI's impact on healthcare quality (Howell, 2024). Another problematic trend is the documented effect of healthcare privatization, which evidence suggests can potentially lead to a deterioration in the quality of care, necessitating a focused examination of this risk factor (Goodair & Reeves, 2024). In sum, the current fragmented state of knowledge across conceptual models, implementation science, systemic barriers, and technological integration underscores the critical need for a high-level, academic, and cohesive review to clarify the role of quality in improving health systems and to guide the strategic deployment of resources and policies in this vital domain.

Research Objectives

This review aims to achieve the following objectives:

1. To synthesize current conceptual frameworks of healthcare quality.
2. To evaluate the effectiveness of established quality improvement initiatives.
3. To identify the emerging opportunities and challenges of advanced technologies in improving service quality.

Literature Review

The concept of healthcare quality stands as a central pillar in the discourse of health system functionality and reform globally (Rauf et al., 2025). The literature highlights that a robust, quality-driven system is fundamental to achieving positive patient outcomes and ensuring optimal utilization of resources (Ali et al., 2024). The academic exploration of quality in this context is necessarily multidisciplinary, spanning management, clinical science, public health, and technology (Endalamaw et al., 2024).

The definition of healthcare quality is multifaceted and has evolved significantly from a focus purely on clinical competence to a comprehensive consideration of system performance and patient experience (Hannawa et al., 2022). A prevailing view

emphasizes six core dimensions: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity (Endalamaw et al., 2024). Patient-centeredness, in particular, has gained prominence, recognizing the patient's perspective as vital to defining and assessing quality (Marzban et al., 2022). For example, subjective well-being (SWB) is now being proposed as a key determinant and metric of healthcare service quality, moving beyond objective clinical measures to capture the holistic impact of care on the individual (Lee et al., 2025). Similarly, the active involvement of patients, or patient engagement, has been empirically linked to improved healthcare quality, underscoring the shift towards co-production of care (Marzban et al., 2022).

Furthermore, quality is intimately related to patient behavior, as enhancing therapy adherence is shown to significantly impact clinical outcomes, healthcare costs, and overall patient quality of life (Religioni et al., 2025). Differing perceptions of quality between health professionals and patients also highlight the complexity, with each group prioritizing distinct aspects, necessitating frameworks that harmoniously integrate both technical and experiential elements of care (Hannawa et al., 2022). An example of measuring patient-perceived quality is the application of the SERVQUAL approach, which has been utilized in specific geographic contexts to evaluate the effect of service quality on patient satisfaction (Al-Balas et al., 2025). Factors determining patient-perceived quality are diverse, influenced by systemic factors such as resource availability and managerial practices, as observed in studies from different regions (Servetkienė et al., 2023; Anufriyeva et al., 2022).

The literature extensively covers various organizational models and managerial initiatives designed to instantiate quality improvements within health systems. Continuous Quality Improvement (CQI) is a widely adopted philosophy, characterized by a systematic, continuous process for improving health outcomes by making measurable improvements to systems, processes, and service delivery (Endalamaw et al., 2024). Research provides an overview of CQI's conceptualization, models, tools, and the barriers and facilitators to its successful implementation, emphasizing its relevance across diverse healthcare settings (Endalamaw et al., 2024). Case studies, such as a mixed-methods study from Zimbabwe, have explored the concrete influence of CQI on healthcare quality, underscoring its potential for positive change when implemented effectively (Gage et al., 2022). Successful CQI and quality improvement initiatives require robust leadership and management practices (Enahoro et al., 2024).

Another pivotal organizational strategy is the adoption of principles from High Reliability Organizations (HROs) (Oster & Braaten, 2025). The HRO model, particularly relevant for environments where errors can have catastrophic consequences (like healthcare), focuses on the preoccupation with failure, reluctance to simplify interpretations, sensitivity to operations, commitment to resilience, and deference to expertise (Oster & Braaten, 2025). Embedding these principles is presented as a practical handbook approach for health systems seeking to bolster patient safety and overall quality (Oster & Braaten, 2025). Closely related is the implementation of formal Quality Management Systems (QMS), which aim to formalize quality standards and procedures.

Experts' perspectives on QMS implementation reveal a range of facilitators, such as strong management commitment, and barriers, including cultural resistance and complexity, which all critically influence the realized benefits (Rawshdeh et al., 2024).

Beyond internal organizational models, hospital accreditation has been a major external strategy for quality assurance and improvement. A systematic review of the literature on accreditation suggests that it can have a positive impact on the quality of healthcare, largely by promoting standardized practices, structured self-assessment, and external validation against established benchmarks (Hussein et al., 2021). However, the literature also notes that the observed impact can be heterogeneous, implying that the success of accreditation is heavily dependent on the context and the organizational capacity to engage meaningfully with the process (Hussein et al., 2021).

The underlying organizational culture is frequently cited as a crucial determinant of quality outcomes (Hoxha et al., 2024). A culture that prioritizes and rewards quality, safety, and continuous learning is essential for the sustainable achievement of high-quality care, often correlating positively with job satisfaction among staff (Hoxha et al., 2024). However, achieving and sustaining a quality-focused culture is complicated by several persistent systemic challenges. Resource constraints are a formidable, widely reported barrier to quality improvement, particularly in developing or resource-limited settings (Sharma & Cotton, 2023). Addressing this requires a strategic focus on efficiency and innovative solutions to bridge the gap between resource availability and quality standards (Sharma & Cotton, 2023).

Furthermore, the evolving structure of health systems, particularly the trend towards privatization, presents a complex problem for quality. Empirical research has raised concerns that the privatization of healthcare can negatively affect the quality of care provided, suggesting a potential trade-off between cost-efficiency objectives and the core commitment to quality (Goodair & Reeves, 2024). This structural issue necessitates careful monitoring and policy interventions to safeguard quality standards (Goodair & Reeves, 2024).

Technological Integration and Future Opportunities

The most dynamic area of current research centers on the transformative potential of advanced technologies, especially Artificial Intelligence (AI) and distributed systems (Aminizadeh et al., 2024). AI is presented with significant opportunities to improve healthcare service quality through enhanced diagnostic accuracy, personalized medicine, and streamlined operations (Aminizadeh et al., 2024). For instance, Generative AI is explored for its emerging role as a Virtual Healthcare Assistant, promising to enhance patient care quality through automated support and personalized interactions (Samala & Rawas, 2024). Similarly, the use of virtual consultation between primary and specialized care is being studied for its potential to improve healthcare quality across various domains (Marco-Ibáñez et al., 2023).

However, the literature is also replete with cautionary analyses concerning the integration of AI. Specifically, there are significant and pressing challenges related to patient safety, ethical considerations, data reliability, and the potential for unintended

consequences (Howell, 2024). The responsible deployment of generative AI, in particular, requires careful governance to ensure it augments, rather than compromises, the quality and safety of patient care (Howell, 2024). The scholarly debate highlights the necessity of rigorous validation and clear regulatory frameworks to fully realize the promise of these technological opportunities while mitigating associated risks to healthcare quality (Aminizadeh et al., 2024).

Results

The analysis confirms that the conceptualization of healthcare quality has undergone a significant and necessary evolution, moving beyond purely technical and clinical efficacy to embrace patient-centric, holistic measures (Hannawa et al., 2022). A critical finding is the strong support for expanding quality metrics to include the patient's perspective, reflecting a paradigm shift in defining successful care (Marzban et al., 2022). Specifically, the literature consistently positions patient subjective well-being (SWB) as an increasingly important metric, suggesting that quality must be assessed not only by the absence of negative outcomes but by the presence of positive life impact for the patient (Lee et al., 2025). Furthermore, the domain of quality explicitly includes the promotion of therapy adherence, demonstrating its direct and measurable impact on enhancing clinical outcomes, cost management, and the patient's overall quality of life (Religioni et al., 2025). This integration underscores that quality is co-produced, making patient engagement a vital component for ensuring high-quality care (Marzban et al., 2022).

The synthesis also revealed persistent challenges in achieving a unified quality definition due to differing priorities between health professionals and patients, who often emphasize distinct quality aspects, requiring integrated assessment tools (Hannawa et al., 2022). Tools like the SERVQUAL model are documented as being used to effectively evaluate patient satisfaction and the impact of service quality in various settings (Al-Balas et al., 2025). Additionally, the analysis highlighted how perceived quality is influenced by contextual factors, such as the local healthcare system and patient environment, underscoring the need for context-specific quality management (Servetkienė et al., 2023; Anufriyeva et al., 2022). These results collectively synthesize a multifaceted definition of quality where clinical excellence, human experience, and system-level performance are inextricably linked (Kamalasanan et al., 2024).

The review provides extensive evidence regarding the effectiveness of structured quality improvement initiatives, while simultaneously identifying critical determinants of their success or failure. Continuous Quality Improvement (CQI) models are broadly presented as an essential systemic approach for continuous enhancement, with research providing clear frameworks, tools, and evidence of its positive influence on specific care outcomes when well-implemented (Endalamaw et al., 2024; Gage et al., 2022). Success factors for CQI and general quality initiatives are strongly linked to the quality of management and leadership, which must actively support and drive the change process (Enahoro etal., 2024).

A critical finding regarding organizational excellence is the compelling case for

adopting High Reliability Organization (HRO) principles to bolster patient safety and system quality, particularly in high-risk environments (Oster & Braaten, 2025). The successful integration of HRO principles, alongside robust Quality Management Systems (QMS), is shown to be heavily influenced by organizational culture, with a supportive culture acting as a significant facilitator, and resistance or a non-committal culture serving as a major barrier (Hoxha et al., 2024; Rawshdeh et al., 2024).

Regarding external quality mechanisms, the review confirms that hospital accreditation is generally associated with improved quality outcomes (Hussein et al., 2021). However, the results emphasize that the magnitude of this impact is variable and depends on the organization's engagement level and the context, suggesting that accreditation is a necessary, but not always sufficient, condition for sustained quality improvement (Hussein et al., 2021). Furthermore, the synthesis identified substantial systemic barriers, most notably resource constraints, which pose a fundamental challenge to fully implementing and sustaining quality improvements, particularly in resource-scarce settings (Sharma & Cotton, 2023). A final critical finding relates to health system structure: the literature presents empirical concern that privatization may negatively impact the quality of care, suggesting a trade-off that necessitates careful regulatory oversight (Goodair & Reeves, 2024).

The analysis strongly identifies advanced technologies, most prominently Artificial Intelligence (AI) and distributed systems, as major future drivers of quality improvement (Aminizadeh et al., 2024). Significant opportunities are demonstrated, including the potential for AI to enhance quality through sophisticated diagnostic support and operational efficiency (Aminizadeh et al., 2024). A key emerging application is Generative AI as a Virtual Healthcare Assistant, which shows promise for personalized patient care and information support, thus contributing directly to patient-centered quality (Samala & Rawas, 2024). Furthermore, the adoption of virtual consultations between primary and specialized care is shown to offer potential for quality enhancement across various health service domains (Marco-Ibáñez et al., 2023).

However, a crucial result is the clear delineation of substantial and urgent challenges associated with AI adoption, particularly concerning its ethical implications and the preservation of patient safety (Howell, 2024). The literature highlights the inherent risks of sophisticated AI, including issues of data integrity, algorithmic bias, and the responsibility inherent in clinical decision support, concluding that a cautious, highly governed approach is necessary (Howell, 2024; Aminizadeh et al., 2024). These results collectively underscore that the successful integration of technology requires robust governance and a primary focus on quality and safety over mere technological adoption.

Discussion

The finding that healthcare quality has broadened to include metrics like subjective well-being (SWB) and patient engagement is a crucial interpretative point (Lee et al., 2025; Marzban et al., 2022). This expansion signifies a mature understanding that technical competency alone is insufficient; true quality lies in the holistic, human

experience of care (Hannawa et al., 2022). The demonstrated link between quality and therapy adherence further elevates the patient's active role, suggesting that future quality models must be relational and co-produced, making the patient an intrinsic part of the quality assurance process, not merely a recipient (Religioni et al., 2025). The variation in perceived quality across different health systems and patient groups (Servetkienė et al., 2023; Anufriyeva et al., 2022) underscores that the definition of quality must be culturally and contextually sensitive, requiring local adaptation of standardized tools like SERVQUAL (Al-Balas et al., 2025). This interpretive lens suggests that health systems must urgently re-align their measurement and reporting systems to capture these critical experiential and behavioral domains, ensuring that care is genuinely patient-centric.

The evidence on the effectiveness of established initiatives like CQI and the HRO model confirms their essential role as structured frameworks for improvement (Endalamaw et al., 2024; Oster & Braaten, 2025). However, the discussion must move beyond a simple description of their potential and focus on the critical determinants of their success. The consistent emphasis on strong management, leadership, and a supportive organizational culture as primary facilitators (Enahoro et al., 2024; Hoxha et al., 2024) implies that quality improvement is fundamentally an issue of organizational behavior and cultural transformation, not just procedural change (Rawshdeh et al., 2024).

A critical interpretation of the mixed impact of hospital accreditation (Hussein et al., 2021) suggests that while it provides necessary standardization, it may not drive deep, sustained cultural change unless accompanied by genuine commitment and a robust QMS (Hussein et al., 2021). This implies that policymakers and regulators must pivot from viewing accreditation as an endpoint to seeing it as a minimum baseline that must be supported by internal organizational drivers. Furthermore, the persistent and critical barriers of resource constraints (Sharma & Cotton, 2023) and the potential negative impact of privatization (Goodair & Reeves, 2024) reveal structural weaknesses that quality initiatives alone cannot fully address. These findings carry a significant implication for policy, demanding structural reforms that safeguard quality from purely market-driven pressures and ensure equitable resource allocation.

The review's findings concerning Artificial Intelligence (AI) and Generative AI represent the most urgent area for future strategic planning (Aminizadeh et al., 2024; Samala & Rawas, 2024). The promise of technological solutions to enhance quality is undeniable, offering unprecedented capabilities for efficiency and personalized care (Marco-Ibáñez et al., 2023). However, the equally strong emphasis on the challenges—specifically concerning patient safety and ethical governance (Howell, 2024)—serves as a crucial interpretive caution.

The primary implication here is that the rapid adoption of AI must be approached with High Reliability Organization (HRO) vigilance, prioritizing safety protocols, rigorous validation, and ethical oversight above speed of deployment. This is not merely a technical issue; it is a profound matter of quality governance, requiring new professional competencies and interdisciplinary collaboration to ensure that AI integration genuinely augments, rather than compromises, the core values of healthcare

quality. The entire health system must prepare for a future where technology is a critical component of quality, but where human oversight and ethical responsibility remain paramount.

Conclusion

This review unequivocally confirms that the pursuit of quality is the central and non-negotiable strategy for improving health systems worldwide. The key findings illustrate a critical evolution in the understanding of quality, which now extends beyond technical competence to encompass a holistic, patient-centric framework that integrates subjective well-being and active patient engagement. The review established the foundational value of structured improvement methodologies, such as Continuous Quality Improvement (CQI) and High Reliability Organization (HRO) principles, but critically noted that the success of these initiatives is highly dependent on strong, committed leadership and a pervasive, quality-focused organizational culture.

Furthermore, while structural challenges like resource constraints and the risks associated with privatization persist, the emergence of advanced technologies, particularly Artificial Intelligence, presents significant opportunities to revolutionize quality and efficiency, provided their integration is governed by robust ethical and patient safety protocols. Ultimately, sustainable health system improvement rests on a dynamic, comprehensive quality strategy that aligns clinical excellence, organizational culture, technological innovation, and patient experience.

Recommendations

Based on the critical findings and implications of this review, the following recommendations are proposed to guide future policy, practice, and research:

1. Integrate Patient-Centric Metrics into Quality Frameworks: Health systems must formally adopt and regularly measure non-traditional metrics like Patient Subjective Well-being (SWB) and Therapy Adherence alongside clinical outcomes to ensure quality assessment reflects the holistic impact of care, moving beyond merely process or deficiency-based measures.
2. Prioritize Quality Leadership and Culture: Investment should be directed towards developing management and clinical leadership capabilities in High Reliability Organization (HRO) and Quality Management System (QMS) principles. Quality improvement efforts must be explicitly linked to organizational performance reviews to institutionalize a culture of safety and continuous improvement.
3. Establish Robust Governance for AI Integration: Given the substantial risks to patient safety, health authorities should immediately develop clear, mandatory regulatory and ethical frameworks for the safe and responsible adoption of Artificial Intelligence (AI) and generative technologies, ensuring that human oversight and algorithmic transparency are non-negotiable requirements for deployment.
4. Address Structural Barriers through Policy: Policymakers must implement targeted strategies to mitigate the impact of resource constraints on quality, especially in underserved regions, by prioritizing cost-effective CQI models and

ensuring that privatization efforts are accompanied by rigorous, quality-focused regulatory oversight to prevent degradation of care standards.

References

Al-Balas, S. M., Al-Maqableh, H. O., Athamneh, S., & Odeibat, A. M. (2025). Quality status: A SERVQUAL approach to evaluate the effect of the quality of healthcare services on patient satisfaction in Jordan. *International Journal of Healthcare Management*, *18*(2), 351-367.

Ali, J., Jusoh, A., Idris, N., & Nor, K. M. (2024). Healthcare service quality and patient satisfaction: a conceptual framework. *International Journal of Quality & Reliability Management*, *41*(2), 608-627.

Aminizadeh, S., Heidari, A., Dehghan, M., Toumaj, S., Rezaei, M., Navimipour, N. J., ... & Unal, M. (2024). Opportunities and challenges of artificial intelligence and distributed systems to improve the quality of healthcare service. *Artificial Intelligence in Medicine*, *149*, 102779.

Aminizadeh, S., Heidari, A., Dehghan, M., Toumaj, S., Rezaei, M., Navimipour, N. J. & Unal, M. (2024). Opportunities and challenges of artificial intelligence and distributed systems to improve the quality of healthcare service. *Artificial Intelligence in Medicine*, *149*, 102779.

Anufriyeva, V., Pavlova, M., Stepurko, T., & Groot, W. (2022). The perception of health care quality by primary health care managers in Ukraine. *BMC health services research*, *22*(1), 895.

Enahoro, A., Osunlaja, O., Maha, C. C., Kolawole, T. O., & Abdul, S. (2024). Reviewing healthcare quality improvement initiatives: Best practices in management and leadership. *International Journal of Management & Entrepreneurship Research*, *6*(6), 1869-1884.

Endalamaw, A., Khatri, R. B., Mengistu, T. S., Erku, D., Wolka, E., Zewdie, A., & Assefa, Y. (2024). A scoping review of continuous quality improvement in healthcare system: conceptualization, models and tools, barriers and facilitators, and impact. *BMC Health Services Research*, *24*(1), 487.

Gage, A. D., Gotsadze, T., Seid, E., Mutasa, R., & Friedman, J. (2022). The influence of Continuous Quality Improvement on healthcare quality: A mixed-methods study from Zimbabwe. *Social Science & Medicine*, *298*, 114831.

Goodair, B., & Reeves, A. (2024). The effect of health-care privatisation on the quality of care. *The Lancet Public Health*, *9*(3), e199-e206.

Hannawa, A. F., Wu, A. W., Kolyada, A., Potemkina, A., & Donaldson, L. J. (2022). The aspects of healthcare quality that are important to health professionals and patients: A qualitative study. *Patient education and counseling*, *105*(6), 1561-1570.

Howell, M. D. (2024). Generative artificial intelligence, patient safety and healthcare quality: a review. *BMJ Quality & Safety*, *33*(11), 748-754.

Hoxha, G., Simeli, I., Theocharis, D., Vasileiou, A., & Tsekouropoulos, G. (2024). Sustainable healthcare quality and job satisfaction through organizational culture: Approaches and outcomes. *Sustainability*, *16*(9), 3603.

Hussein, M., Pavlova, M., Ghalwash, M., & Groot, W. (2021). The impact of hospital

accreditation on the quality of healthcare: a systematic literature review. *BMC health services research*, *21*(1), 1057.

Kamalasanan, A., Subbarayalu, A. V., MR, A., GL, H., Raman, V., Ramzi, O. I. & Alfaraj, E. (2024). Nurses' perception on the quality of healthcare services: A cross-sectional study. *International Journal of Healthcare Management*, *17*(4), 817-826.

Lee, H. A., Poon, N., Dolan, P., Darzi, A., & Vlaev, I. (2025). Patients' subjective well-being: Determinants and its usage as a metric of healthcare service quality. *Journal of Health Psychology*, *30*(3), 486-497.

Marco-Ibáñez, A., Aguilar-Palacio, I., & Aibar, C. (2023). Does virtual consultation between primary and specialised care improve healthcare quality? A scoping review of healthcare quality domains assessment. *BMJ Open Quality*, *12*(4), e002388.

Marzban, S., Najafi, M., Agolli, A., & Ashrafi, E. (2022). Impact of patient engagement on healthcare quality: a scoping review. *Journal of patient experience*, *9*, 23743735221125439.

Marzban, S., Najafi, M., Agolli, A., & Ashrafi, E. (2022). Impact of patient engagement on healthcare quality: a scoping review. *Journal of patient experience*, *9*, 23743735221125439.

Oster, C. A., & Braaten, J. S. (2025). *High reliability organizations: A healthcare handbook for patient safety & quality*. Sigma Theta Tau.

Rauf, A., Muhammad, N., Mahmood, H., & Aftab, M. (2025). Healthcare service quality: a systematic review based on PRISMA guidelines. *International Journal of Quality & Reliability Management*, *42*(3), 837-850.

Rawshdeh, M., Keathley, H., Obeidat, S., Al Athamneh, R., Rababah, M., & Furterer, S. (2024). Facilitators, barriers, and benefits of quality management systems implementation: healthcare experts' perspectives. *Engineering Management Journal*, *36*(1), 103-116.

Religioni, U., Barrios-Rodríguez, R., Requena, P., Borowska, M., & Ostrowski, J. (2025). Enhancing therapy adherence: impact on clinical outcomes, healthcare costs, and patient quality of life. *Medicina*, *61*(1), 153.

Samala, A. D., & Rawas, S. (2024). Generative AI as Virtual Healthcare Assistant for Enhancing Patient Care Quality. *International Journal of Online & Biomedical Engineering*, *20*(5).

Servetkienė, V., Puronaitė, R., Mockevičienė, B., Ažukaitis, K., & Jankauskienė, D. (2023). Determinants of patient-perceived primary healthcare quality in Lithuania. *International journal of environmental research and public health*, *20*(6), 4720.

Sharma, D., & Cotton, M. (2023). Overcoming the barriers between resource constraints and healthcare quality. *Tropical Doctor*, *53*(3), 341-343.