



## FACILITATORS AND CHALLENGES IN IMPLEMENTING TQM IN HEALTHCARE: A SYSTEMATIC LITERATURE REVIEW

**Nirmala Purohit**

Research Scholar, Pacific Academy of Higher Education & Research University, Udaipur

**Dr. Khushbu Agarwal**

Associate Professor, Pacific Academy of Higher Education & Research University, Udaipur

### ABSTRACT

Total quality management (TQM) has been adopted in various service industry including in healthcare as healthcare quality is very crucial in current competitive environment. In this scoping review study systematic academic search is done through Google Scholar, Scopus, PubMed, Research gate and Open Alex for studies published between 2015 to 2025 strong evidence are discovered that support enablers such as improved service quality, operation efficiency, patient satisfaction and barriers need to address such as limited resources, resistant to change, lack of top management commitment, inconsistent measurement framework etc. for successful implication of TQM in healthcare. This study contributes comprehensive guidance of recent TQM research and directions for future empirical investigation.

**KEYWORDS :** Total Quality Management, Patient Satisfaction, Operation Efficiency, Continuous Improvement.

### INTRODUCTION

TQM is a comprehensive approach that emphasizes continuous improvement, customer satisfaction, and the active involvement of all employees in achieving organizational goals. By exploring how TQM principles and practices are applied in healthcare settings, this study seeks to examine the role of Total Quality Management in enhancing healthcare efficiency and improving patient satisfaction. As healthcare systems around the world face rising costs, lack of staff, and patient expectations are increasing, organizations are seeking innovative approaches to optimize service delivery, improve patient outcomes, and enhance overall patient satisfaction. One of the most effective strategies that has emerged to address these challenges is Total Quality Management (TQM). The implementation of Total Quality Management in healthcare offers significant potential to improve both operational efficiency and patient satisfaction. As the healthcare sector continues to face increasing demand for high-quality care, the principles of TQM provide a structured and effective approach to meeting these demands. Through continuous improvement, data-driven decision making, and employee involvement, healthcare organizations can deliver higher-quality services while optimizing resources and enhancing patient experiences. The adoption of TQM in healthcare settings is not only a strategy for operational excellence but also a commitment to putting patients at the heart of care delivery.

### Methodology

In this scoping review study systematic academic search is done through Google Scholar, Scopus, PubMed, Research gate and Open Alex for studies published between 2015 to 2025 from peer review journals of Management and TQM, hospital quality and service quality, Medical and chemical sciences journals are not considered. The study is based on TQM on healthcare only all studies out of this exact motive are ignored.

### Review of Literature- Challenges in Implementing TQM in Healthcare-

As per the study by Tessema et al. (2024), while the benefits of TQM in improving healthcare efficiency and patient satisfaction are evident, several challenges are there in its successful implementation. Healthcare professionals may resist TQM initiatives due to mistrust, a lack of understanding of its benefits, or fear of disrupting established workflows. Overcoming resistance requires strong leadership, clear communication about the benefits of TQM, and training to ensure all staff members are aligned with the goals of the program.

According to Almutairi et al. (2024), implementing TQM in healthcare requires significant investments in resources, training, technology, and process redesign. For healthcare organizations with limited resources, these costs can be prohibitive. Smaller organizations, in particular, may struggle to adopt TQM fully without external support or funding.

Akhorshaidh et al., (2023) Adaption of TQM practices is interrupted by cultural resistant and lack of proper resources.

According to Lim et al. (2022), errors in clinical processes lead to

destroy flow, increased costs, and adverse patient outcomes. TQM practices, such as root cause analysis and failure mode effect analysis (FMEA), Data driven decision making are used to identify potential errors and develop solutions to prevent them. Reduction in clinical errors contributes to more efficient healthcare operations and hence achieve patient satisfaction.

Alshourah (2021) Studies that where Factors like leadership commitment, continuous improvement improve service quality other side hurdles like inconsistent monitoring, lake of staff motivation, cost increase pressure are major challenges in TQM implication in healthcare.

Spath (2021) By drawing system theory isolated quality interventions are inefficient instead of this integrated alignment of leadership, technology, cultural, resources, and process is demand of sustainable improvement. Root cause analysis and data matrixes and continuous feedback should be emerged efficiently to achieve comprehensive systems-thinking approach rather than focusing on isolated quality practices.

Atalıç & Çiçek (2021) The results from study showed that although healthcare providers noticed the benefits of TQM in improving patient outcomes implementation was impacted by issues such increasing workload, inadequate training, and cultural opposition, daily target pressure from supervisor.

Aranha & Venkateswaran (2020) Emphasis on coordination between HRM and quality management in healthcare all quality practices and tools are superficial unless approval and initiative of HR and quality department and permission to employee in active involvement as and when needed for quality improvement.

Antony et al. (2019) clearly discussed TQM in healthcare system face problem due to resistance to change, increased workload, leadership support, resource limitations, inadequate communication and the complexity of healthcare systems.

S. Gupta and S. Jain's (2018) Leadership commitment, continuous improvement, employee involvement, financial and human resources are possible barriers of successful management by focusing on quality management can enhances employee satisfaction, motivation, and overall workforce performance.

Obeidat, B. Y., Tarhini, A., Masa'deh, R., & Aqqad, N. (2018) Find out how knowledge management functions as a mediating key factor in the relationship between intellectual capital and innovation in Jordanian SMEs.

Al-Dhaafri, H. S., Al-Swidi, A. K., & Yusoff, R. Z. B. (2018) highlighted that absence of proper strategies, gape between goal and processes, lack of awareness of vision and mission, improper planning are barriers in TQM implication and organization performance.

Dubey, R. et al. (2017) Quality culture and improved HR practices are

very crucial for successful implication of TQM practices in healthcare for performance improvement.

Kohli & Yadav (2016). Healthcare organizations are complex systems with multiple departments and specialties. Achieving integration and coordination between these different entities to implement TQM must be challenging. Lack of communication within the organization may impact the flow of information and barrier in the successful application of TQM principles.

Faloudah, Qasim, Bahumayd (2015) examined that instead of conducting extensive empirical testing, the paper usually takes a conceptual/descriptive approach, outlining implementation phases and typical difficulties. Its usefulness is seen in converting abstract TQM concepts into checklists that managers in low-resource environments may use.

Mosadeghrad (2015) Studied multidimensional TQM approach in hospitals by doing survey at different level of staff. Author found many challenges to TQM implementation in the healthcare industry, such as a lack of support from upper management, inadequate staff education and training, and employee reluctance to change.

There are various problems in implementing TQM in healthcare. The majority of them according to the Literature Lack of top management support (Tessema et al 2024, Al-Dhaafri, H. et al. 2018), poor communication, unawareness of quality management practices, improper performance measurement systems(Almutairi et al. 2024, Akhorshaideh et al 2023), Resistant to change, cultural hurdles, Lack of adequate training programmes, Financial and human resources constrains, short term implementation without goal (Lim 2022) , Lack of context based training programmes, Lack of coordination between quality and HRM systems (Aranha & Venkateswaran 2020) , Poor strategic and planning in TQM practices, complex healthcare systems with multiple department (Kohli & Yadav 2016), Resistant to change in management systems, fail to address patient satisfaction practices , Management is not competent for quality culture, Superficial TQM practices adaption for document purposes.

Key Challenges according to existing Literature-

- Lack of top management support is crucial challenge, top management by setting clear vision and mission assign resources according to that are able to drive quality culture.
- Employee are resistant to change, less involvement and this cultural hurdle block the TQM adoption in healthcare.
- Inadequate training programmes and less investment in employee skill development restrict it in hospital environment.
- Short term TQM implementation in healthcare systems with inconsistent adoption is leads to failure.
- Complex healthcare system with multiple departments with hierarchies make decision time consuming. Poor communication is challenging in these hierarchies' system.
- Resources are biggest challenges to mitigate in terms of financial and human constraints.
- Findings suggest integrated alignment of leadership, technology, cultural, resources, and process with inefficient feedback systems make it challenging. Coordination between HRM and quality department is required to change the system.

These are often generalized challenges unique to particular country hospitals, such as infrastructure constraints and regulatory pressures.

**Table 1 - Challenges in Implementing TQM in Healthcare**

Author	Year	Challenges
Tessema et al.	2024	Top Management support, Resistant, Training, Inadequate use of quality Management practices, Lack of research and managerial aptitude
Almutairi et al.	2024	Inconsistent TQM practices in hospitals, insufficient Knowledge of TQM Principals, Financial Resources, Training
Akhorshaideh et al	2023	Cultural Resistance, Demand for healthcare is rising, insufficient Knowledge of TQM Principals, Financial Resources, Training
Lim et al.	2022	Short term implantation, poor employee involvement, Quality Tools for accuracy, cultural hurdles

Alshourah	2021	Inconsistent monitoring, lake of motivation, cost increase pressure
Spath	2021	Isolated quality interventions, poor employee involvement
Atalıç & Çiçek	2021	Workload, Training, Cultural resistance
Aranha & Venkateswaran	2020	Lack of coordination between HRM and Quality
Antony J. et al.	2019	Resistance to Continuous Improvement
Alshourah, S.	2019	Improper Performance measurement systems
Gupta, S. & Jain, S.	2018	Financial and human Resources, Top management commitment, Lack of Resources, insufficient training programme, Communication gape
Obeidat, B.Y. et al.	2018	Insufficient Knowledge
Al-Dhaafri, H. et al.	2018	Poor strategies and Planning, Leadership commitment, Lack of continuous improvement culture
Dubey, R. et al.	2017	Resistance to change, insufficient training programme, poor employee involvement
Kohli & Yadav	2016	Complex systems, Lack of coordination
Faloudah, Qasim, Bahumayd	2015	Practical and actionable management practices, unawareness of quality practices, improper resources
Mosadeghrad	2015	Poor management , Resistant to change, poor performance management systems, cultural hurdles

**Enablers of TQM in Healthcare-**

Ramasamy and Avadayar (2024) TQM helps in sustainable growth in private hospital. By doing case base and Empirical analysis TQM practices help both in improve service quality and sustainability in private hospitals. The author found that patient trust, ecofriendly services and wellbeing is more important in private hospital Ruther then for only financial benefit.

Jiang et al. (2024) Presented 33 years of TQM and business efficiency research in different phases initial was focused on quality control from late 1980s to early 1990s , later was on business performance and customer satisfaction (2000s), recent after 2010s integrations of advanced technologies and sustainable practices.

Akhorshaideh et al., (2023) Based on Jordanian healthcare organizations studied how top management support, customer satisfaction, employee involvement contributes in service quality. The study suggested that how the alignment of organization objectives and customization impact TQM adaption.

Mahdikhani (2023) Studied Lean six sigma and supply chain integrations with TQM practices the systematic research found that industry 4.0 revolution and green supply chain practices. Particularly for pharmaceuticals and medical equipment opportunities are fond for healthcare supply chains.

Ali & Johl (2022) identified that TQM involves the use of data and metrics to monitor performance, identify areas for improvement, and track progress. In healthcare, this often means measuring clinical outcomes, patient satisfaction, operational efficiency, and staff performance, training and feedback.

Lebcir & Sideras (2021) explored the importance of learning and knowledge sharing as enablers for TQM implementation in healthcare. Using case study analysis, they concluded that TQM is not simply a technical framework but a learning process that depends on systematic knowledge exchange across departments. The study revealed that organizations fostering communities of practice, training programs, and cross-functional meetings were more successful in embedding TQM principles. Moreover, knowledge sharing facilitated innovation, reduced duplication of errors, and empowered frontline staff. This study is significant because it shifted focus from TQM as a static set of tools toward TQM as a dynamic learning culture, reinforcing that knowledge flows and organizational learning are prerequisites for successful quality transformation.

Zhang, Moreira, & Sousa (2021) conducted a bibliometric analysis of TQM applications in the service sector, providing insights relevant to healthcare. By analyzing publication trends, citation networks, and thematic clusters, the authors found that TQM research in services had

expanded into areas such as customer satisfaction, innovation, and sustainability. While healthcare was one of the prominent sectors studied, the review noted gaps in cross-disciplinary approaches and in linking TQM with digital technologies. This study is useful because it situates healthcare within a broader service-sector perspective, demonstrating both commonalities and unique challenges in applying TQM to service quality improvement.

Atalıç & Çiçek (2021) In this study survey based evidence from clinical staff found that quality in healthcare is driven from attitude of top management, teamwork, integration of department and staff. The need of engagement of employee in healthcare quality is essential rather than just for documentation purpose.

Babu & Thomas (2020) explored the relationship between TQM practices and organizational image in the hospital industry. Their empirical study found that hospitals with strong TQM practices (leadership commitment, staff involvement, and continuous improvement) enjoyed a stronger reputation and credibility among patients and the community. Importantly, the study emphasized that quality practices not only improved operational performance but also built trust and legitimacy, which are vital for long-term competitiveness in healthcare markets. This contribution is valuable because it links TQM to intangible outcomes such as organizational image and brand reputation, broadening its perceived value beyond operational.

Tonjang & Thawesaengskulthai (2020) indicated that TQM emphasizes waste reduction by improving process efficiency and minimizing unnecessary steps. In healthcare, this can mean eliminating redundant tests, streamlining administrative tasks, or reducing the time spent on non-value-added activities.

Aranha & Venkateswaran (2020) HR practices such as training, motivation, rewards can play crucial role for better Quality practices.

Bouranta et al. (2019) enriched the literature by conducting a cross-cultural comparative study of TQM in the broader service sector, with implications for healthcare. They identified leadership, customer focus, employee involvement, and continuous improvement as universal TQM drivers. However, they revealed that cultural dimensions shape how these factors are prioritized. For instance, collectivist cultures (e.g., Asian countries) placed higher emphasis on teamwork and collaborative decision-making, whereas individualist cultures (e.g., Western nations) stressed accountability and performance-based assessment. This insight is vital for healthcare systems worldwide, as it shows that TQM is not a one-size-fits-all model; instead, it requires cultural adaptation. For global health institutions and NGOs, these findings underline the importance of contextualized quality strategies.

Albejaidi (2018) provided a country-specific perspective by examining the challenges of TQM implementation under Saudi Arabia's Healthcare National Transformation Program – Vision 2020. His study identified cultural resistance, lack of trained personnel, financial constraints, and hierarchical organizational structures as major obstacles. Interestingly, he found that top-down government-driven reforms often failed to achieve intended results unless frontline healthcare workers were engaged and motivated. This study underscores the contextual sensitivity of TQM implementation—a “one-size-fits-all” approach does not work, and local culture, policy environment, and workforce dynamics must be considered.

Nicolaou&Kentas (2017) focused on the failure reasons for TQM implementation in healthcare. Their analysis revealed common pitfalls such as weak leadership commitment, lack of continuous staff training, insufficient resources, and resistance to change. Importantly, they emphasized that many hospitals adopt TQM as a short-term initiative rather than embedding it as a long-term organizational culture, which leads to failure. This work is significant because it directly tackles the often-neglected “failure side” of TQM, reminding scholars that barriers and breakdowns are as critical to study as successes.

Halis (2017) examined TQM implementation in the Libyan healthcare industry, uncovering challenges linked to political instability, limited funding, and inadequate training. Despite these barriers, hospitals that committed to TQM principles reported improvements in service delivery, patient satisfaction, and accountability. The study is notable for bringing in a post-conflict, resource-constrained context, showing

how external socio-political factors can make or break TQM adoption. This expands the scope of TQM literature by demonstrating that healthcare quality is not only a managerial issue but also a socio-political one.

Kamra, Singh, & Kumar De (2016) examined TQM factors linked positively with patient satisfaction and dimensions of TQM customer focus play vital role in patient satisfaction.

Vituri&Évora (2015) Discovered impact of TQM practices on nursing staff these are training for better clinical results, their involvement in decision making, sufficient resources, strong leadership, clear communication, continuous improvement, patient satisfaction.

According to study key enablers of TQM practices in healthcare system are waste reductions clinical errors reductions (Tonjang & Thawesaengskulthai 2020) , patient and employee satisfactions and eco-friendly health services (Ramamamy and Avadaiyar, 2024), Technological involvement and quality culture (Jiang 2024), green supply chain management (Mahdikhani, 2023), proper performance measurement and matrices (Ali & Johl 2022), Innovations and sustainability (Zhang, Moreira, & Sousa, 2021), TQM as Teamwork (Atalıç & Çiçek, 2021), HR involvement in TQM (Aranha & Venkateswaran 2020), Continuous improvement, customer focus, Employee involvement and cultural impact (Bouranta et al. 2019) , Long term goal for TQM, Cultural acceptance, Top Management commitment (Nicolaou&Kentas, 2017), TQM for intangible (Credibility) outcomes (Babu & Thomas, 2020), streamlining administrative, waste reductions, TQM effect Patient satisfaction (Kamra, Singh, & Kumar De 2016), Supportive external socio-political factors ( Halis, 2017).

Key Enablers according to study-

- Top management support to define clear vision and mission and allocates required resources accordingly to drive effective quality culture is critical success factor.
- Efficient training and skill development programmes can make TQM in healthcare achievable.
- Organizational culture of continuous improvement by empowering employees can bring in quality practices in system.
- Performance measurement systems with well define process management supported by smooth process flow by using strong audit and benchmarking systems can improve efficiency reduce errors and ensure consistency.
- Patient centric goals with effective feedback systems is crucial

Sufficient resources, active involvement of healthcare staff, improved ongoing training programmes, effective communication, enhances teamwork with defined team goal and desire level of service quality. The use of data-driven decisions, technology and standardized processes helps improve operational efficiency, patient safety, industry 4.0 revolution and overall healthcare outcomes not in terms of clinical excellence also patient expectations.

**Table 2 – Enablers in Implementing TQM in Healthcare**

Author	Year	Enablers
Ramasamy and Avadaiyar	2024	Patient trust, Ecofriendly services
Jiang et al.	2024	Quality control, Customer satisfaction, Technology involvement
Akhorshaideh et al.	2023	Customization of TQM
Mahdikhani	2023	Lean Six Sigma, Green Supply chain management
Ali & Johl	2022	Performance Metrix and area of improvement
Lebcir & Sideras	2021	TQM as Knowledge sharing and Learning Process
Zhang, Moreira, & Sousa	2021	TQM in Service sector for innovation and sustainability, customer focus , Continuous improvement
Atalıç & Çiçek	2021	TQM as Teamwork , integration of department and staff
Babu & Thomas	2020	TQM for intangible (Credibility) outcomes, leadership commitment, staff involvement, and continuous improvement

Tonjang & Thawesaengskulthai	2020	TQM focus on waste reduction for by minimizing non value added steps , streamlining administrative
Aranha & Venkateswaran	2020	HR Involvement in TQM
Bouranta et al.	2019	Continuous improvement , customer focus, Employee involvement and cultural impact
Albejaidi	2018	Hierarchical acceptance , Proper workforce dynamics
Nicolaou&Kentas	2017	Long term goal for TQM, Cultural acceptance , Top Management commitment
Halis	2017	Supportive external socio-political factors, service delivery, patient satisfaction, and accountability
Kamra, Singh, & Kumar De	2016	TQM effect Patient satisfaction, Customer focus, Patient trust
Vituri&Évora	2015	Sufficient resources, strong leadership, clear communication, continuous improvement, patient satisfaction, better clinical results

### Limitation of the Study-

The variations in organizational settings, hospital size, top management support, HR policies influence the conclusion of study. This study is primarily based on literature review hence scope of results is based on previously published work. The study does not involve any empirical evidence from any geographical region so geographical factor also influence the impact. The selection of literature is subjective with publication bias only publically accessible and published studies are considered.

### Scope of the Study-

The focus of this study is a thorough analysis of the factors that support and barriers in Total Quality Management (TQM) in the healthcare sector. The study's scope is restricted to the TQM practices in hospitals and healthcare institutions worldwide. The Key aspects covered of TQM in healthcare in this study are including leadership commitment, staff involvement, training and education, patient centered, continuous improvement, and quality culture as critical enablers. In addition, it looks at important barriers that prevent TQM from being successfully implemented, such as resistance to change, a lack of resources, poor communication, inadequate leadership, and Inconsistent systems.

Overall, this study provides a foundation for future quantitative studies using some real data based evidence. This study provides groundwork for future empirical research based on approximately 40 to 50 classical and recent literature in different healthcare settings.

### Conclusion of Relative Impact of Enablers over Disablers in TQM in Healthcare –

The critical comparative study reveals that certain challenges in TQM implication like Lack of top management support, Resistant to change, Improper training programme, cultural hurdles, complex healthcare systems, lack of coordination between departments, Lack of resources and work pressure are major challenges but enablers of TQM have more positive, beneficial and significant impact compared to disablers. By focusing on TQM as teamwork, developing TQM culture, developing performance metrics, developing training programme, focus on customization TQM practices, Real time interventions, technological support, HR involvement and by defining clear objective and goal to each individual in hospitals the findings suggest that by more emphasis on TQM enablers helps healthcare institutions to derive maximum benefits in terms of patient care and operational efficiency.

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