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Declaration:

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*NUR7008
Summative
Assessment*

Topic: Evaluating the Impact of Total Quality Management Model on Quality of Care in Primary Care

Abstract

Purpose of Study: The purpose of this study is to critically examine previous studies that have examined the effects of the Total Quality Management, also known as TQM, within primary care. The study's overarching goal is to improve the quality of primary care and patient's overall health by identifying and evaluating the elements contributing to the effective deployment of TQM within private healthcare.

Methodology: Using a systematic literature review (SLR) approach, this research examines how the Total Quality Management (TQM) Model affects primary care quality. The SLR employs a thorough search strategy, compiling materials from scholarly publications, reports, and case studies. This method guarantees an in-depth examination and comprehension of the complexity of the subject.

Findings: TQM (Total Quality Management) elements, such as satisfied customers, engaged employees, constant enhancements, and support from management, are significantly correlated with high-quality private healthcare services, as shown by the results. Improved service quality and contented customers result from TQM practises, boosting productivity. Notably, quality performance emerges as a fundamental component of TQM application, mediating the connection between TQM and the satisfaction of patients. The commitment of top management is the utmost significant aspect in improving the standard of service provided.

Contributions: This review makes a useful contribution by analysing the effects of Total Quality Management, or TQM, in primary care from several perspectives. It analyses and assesses critical criteria for effective TQM adoption in private healthcare, focusing on service quality, health outcomes, and patient satisfaction. The study's systematic approach guarantees a thorough analysis, yielding important insights into the intricate dynamics of Total Quality Management in primary care that may be used to enhance the quality of healthcare and patient satisfaction.

Contents

1. Introduction

1.1 Background

In the evolving healthcare landscape, ensuring high-quality care is paramount for achieving positive health outcomes and patient satisfaction. Total Quality Management (also known as TQM) has arisen as a strategic approach to enhance service quality and optimise organisational performance in various industries, including healthcare. According to Halis et al (2017), "attitude, the culture, and organisation of any company which seeks to offer customers quality products and facilities which serve their needs" is what TQM refers to. This study delves into the intricate relationship amid TQM implementation and the value of care provided in primary healthcare sceneries, focusing on private healthcare facilities (Alqasmi, 2022a). Healthcare organisations worldwide are increasingly adopting TQM principles to address the challenges of delivering effective and patient-centred care. TQM, rooted in continuous improvement and customer satisfaction, provides a systematic framework for organisations to enhance their processes, optimise resource utilisation, and ultimately improve patient service quality (Grossu-Leibovica and Kalkis, 2023a). According to Abu Daqar and Constantinovits (2020), Figure 1 shows that TQM is a continuous improvement technique that establishes service quality through staff participation, customer happiness, and top management commitment.
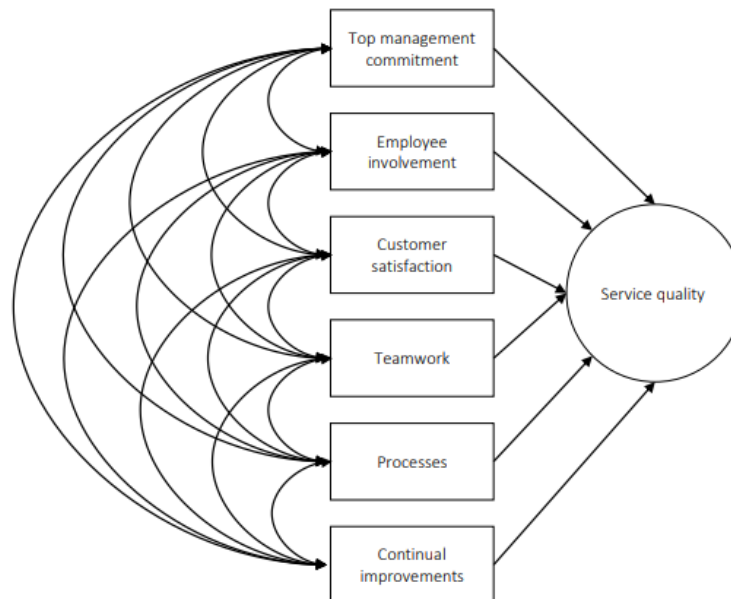

Figure 1. TQM Conceptual Framework

A rising amount of literature highlights the beneficial effects of TQM on numerous facets of healthcare delivery, further demonstrating the importance of TQM in this field. Recent research has shown that TQM improves service quality and patient happiness. This is supported by studies by Grossu-Leibovica and Kalkis (2023) and Abu Daqar and Constantinovits (2020), among others. These studies shed light on the potential game-changer TQM practises may play in healthcare settings. TQM tools are especially investigated by Grossu-Leibovica and Kalkis (2023) for their potential to enhance service quality and patient satisfaction in hospital settings. Their results prove the correlation between TQM elements like satisfied customers, engaged employees, constant improvement, the support of upper management, and high-quality private healthcare services. This demonstrates how crucial TQM methods are in defining the entire patient journey. Abu Daqar and Constantinovits (2020) study the broader influence of TQM on the overall quality of healthcare private organisations provide. Their findings highlight TQM's importance in boosting healthcare quality and the efficiency of healthcare organisations.

Figure 2 shows that 95% of variance in the quality of the private healthcare facilities is predicted by TQM factors (employee involvement, customer satisfaction, continual improvement, top management commitment, teamwork, and processes).
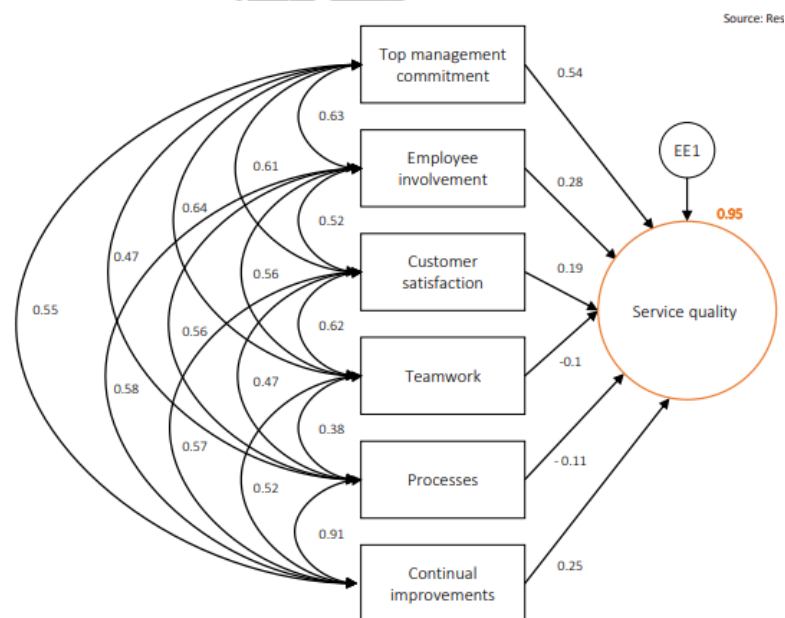
Figure 2: SEM Conceptual Model (Source: Abu Daqar and Constantinovits, 2020)

For successful TQM adoption in private healthcare settings, it is critical first to understand these effects. Alkhaldi and Abdallah's (2021) research digs further, separating TQM's "soft" and

"hard" characteristics. This helps expand our knowledge of TQM in healthcare by illuminating the factors that affect quality outcomes and patient satisfaction. TQM strategies in primary care settings must be evaluated and optimised as healthcare systems develop (Aburayya, 2019).

1.2 Research rationale

There is an urgent requirement to improve the quality of care delivered in primary healthcare settings, which is why a research investigation entitled "Evaluating the Impact of Total Quality Management Model on Quality of Care in Primary Care" is being conducted. Total quality management, also known as TQM, is a strategy framework that has arisen in the ever-changing healthcare industry to improve patient satisfaction and medical care results (Bakri and Pipaş, 2019). Primary care institutions are where it all begins when it comes to promoting health, preventing disease, and treating chronic problems. The need for novel methods to systematically enhance the quality of service and patient happiness is growing in tandem with the need for high-quality care (Gözükara et al., 2019). Understanding that TQM, a tried-and-true approach in many fields, may provide valuable insights and game-changing solutions for the healthcare industry prompted this research (Lebcir and Sideras, 2021). The primary purpose of this study is to assess the effects of TQM programmes on the quality of services, consumer happiness, and health outcomes in primary care settings. According to Jamal and Waseem (2023), the study's primary goal is "to address the current difficulties faced by healthcare organisations in meeting the constantly changing requirements of patients by focusing on all of these critical dimensions." The study is motivated by a need to understand what aspects are most vital to the effective application of TQM in the private healthcare sector. Healthcare policymakers and administrators who want to improve the quality of care would have a deeper understanding of the elements that impact the practical application of TQM practices (Abu Daqar and Constantinovits, 2020). This study's motivations align with the larger objective of promoting changes in primary care that would increase patient satisfaction and better health outcomes. The study was motivated by the conviction that understanding TQM's effect on essential care quality is critical to reshaping healthcare delivery in the future, providing high-quality, person-centred care, and attaining the best possible health outcomes for patients (Grossu-Leibovica and Kalkis, 2023).

1.3 Research aim

This research assesses how primary care facilities' Total Quality Management (TQM) programs affect patient satisfaction, service quality, and health outcomes. To improve primary

care quality and patient happiness, this study also seeks to identify and evaluate the most important aspects contributing to the effective adoption of TQM in private healthcare.

1.4 Research objectives

RO1: To investigate the role of Total Quality Management (TQM) in improving patient satisfaction and service quality

RO2: To assess the impact of TQM on overall quality performance

RO3: To identify critical factors for successful TQM employment in private healthcare

1.5 Research Significance and Gap

This study contains significant implications for expanding the knowledge of Total Quality Management's (TQM) influence on primary care. It fills an essential void in the existing literature by assessing the relationship between service quality, patient happiness, and health outcomes, providing helpful information for enhancing healthcare delivery. The improvement of basic healthcare quality is aided by identifying essential determinants for effective TQM implementation, which fills a crucial knowledge gap. The findings will inspire healthcare professionals and policymakers, enabling transformational solutions to raise patient satisfaction and overall healthcare effectiveness.

1.6 Research question

How does the execution of Total Quality Management (TQM) impact service quality (Grossu-Leibovica and Kalkis, 2023; Abu Daqar and Constantinovits, 2020), patient satisfaction (Grossu-Leibovica and Kalkis, 2023a) and the overall quality of care in primary healthcare settings (Alkhaldi and Abdallah, 2021), and what are the key factors that contribute to successful TQM implementation (Abu Daqar and Constantinovits, 2020a) in private healthcare?

2. Methodology

2.1 Introduction

The methodology section outlines the chosen research methods and procedures to address the research objectives effectively. It outlines the systematic approach used to evaluate the influence of Total Quality Management (also known as TQM) on quality of care in primary healthcare settings.

2.2 SLR as Chosen Method

The Systematic Review of Literature (SLR) constitutes a fundamental methodological tool in academic research, attempting to systematically synthesise and assess available information on

a particular issue(Crisan, Covaliu and Chis, 2021). This SLR study examines the impact of Total Quality Management (TQM) on primary care clinic service quality, utilising various academic sources and SLR to understand the link between TQM and healthcare quality. It offers a systematic way to examine the multifaceted dynamics of TQM strategy implementation in healthcare settings. One of the critical advantages of an SLR in this context is its capability to compile and synthesise multiple studies. By amalgamating various perspectives and findings from empirical research and practical case studies, an SLR enables a holistic evaluation of TQM's impact on the quality of care in diverse primary healthcare settings (Tonjang, 2021). Ethical considerations supporting using an SLR in this study emphasise the avoidance of potential harm or disruption to participants. Utilising existing literature as the primary source of information ensures ethical research practices by not directly involving human subjects (Khorasani, Cross and Maghazei, 2020). Additionally, it allows for extracting valuable insights from previously conducted studies while upholding ethical standards. The generalizability and practicality of findings derived from an SLR are significant. The review aims to provide insights applicable to diverse healthcare settings, enhancing the practical utility of the study's outcomes. The relevance of findings across various healthcare contexts contributes to the study's broader implications and applicability in real-world scenarios. Employing an SLR offers several benefits, including its ability to comprehensively review, compile, and synthesise existing literature on the impact of TQM on the quality of care in primary healthcare settings (Hussein *et al.*, 2021). The validity and utility of findings from an SLR strengthen the credibility and applicability of the study's outcomes in informing healthcare practices and policies.

2.3 Search Strategy and Data Collection

Data collection is fundamental to any research study, providing the basis for analysis and conclusions. In the context of this study on evaluating the impact of the Total Quality Management (TQM) model on quality of care in primary care, secondary data collection from published literature holds significant importance (Ngesimani, Ruhode and Harpur, 2022). Secondary data, drawn from various sources such as journal articles, case studies, and reports, contributes substantially to the study's findings. These sources offer diverse perspectives and empirical evidence essential for comprehensive analysis. The research team used a thorough search approach to obtain information about Total Quality Management, the standard of care, patient happiness, and healthcare management from research databases, journals, and other credible sources (Grossu-

Leibovica and Kalkis, 2023b). Combinations of search terms were utilised to guarantee a thorough search and to collect pertinent papers and research, including "TQM implementation," "quality improvement strategies," "private healthcare," and "patient-centred care." The search strategy emphasises finding high-quality data from trusted sources to guarantee the accuracy and credibility of the data gathered. Data relevant to the study's goals were chosen using a strict selection procedure establishing explicit inclusion and exclusion criteria. This procedure guaranteed that only high-quality and pertinent data were selected from the specified sources, greatly enhancing the study's findings and conclusions. Secondary data from published literature plays a crucial role in advancing the understanding of quality of care in primary care settings (Macpherson *et al.*, 2022). It brings various advantages, including access to a wide range of empirical evidence, diverse perspectives, and established methodologies. Moreover, secondary data facilitates comparative analysis, enabling researchers to identify trends, patterns, and critical factors influencing the effectiveness of TQM in healthcare management (Dixit, Routroy and Dubey, 2019). The contribution of secondary data collection in this study is paramount. It significantly enriched the research outcomes by providing a comprehensive pool of information, diverse viewpoints, and empirical evidence necessary to evaluate the impact of TQM on the quality of care in primary care. Acknowledging its importance, this secondary data collection strategy has facilitated a deeper understanding and insightful analysis of the subject matter (Hutchings *et al.*, 2021).

2.4 Information Sources

In investigating the influence of the Total Quality Management (TQM) model on the quality of care in primary care, the study heavily relies on secondary data, recognising its immense significance in the research domain (Hooshafza *et al.*, 2022). Various sources were judiciously employed to collect credible and substantial information pertinent to the study's objectives. Academic databases, notably ResearchGate, Elsevier, JSTOR, Wiley's Online Library, and MDPI played a pivotal role in gathering a vast array of academic literature and research publications. These databases served as repositories of scholarly articles, peer-reviewed papers, and research publications encompassing a broad spectrum of subjects related to TQM, quality of care, patient satisfaction, and healthcare management (Paracha *et al.*, 2022). Their robust collections provided a wealth of material for comprehensive data collection and analysis. These databases offered diverse and extensive information, ensuring access to a wide range of perspectives, empirical studies, and theoretical frameworks relevant to the study's subject matter. Supplementing the academic

databases, additional sources such as case studies and statistical reports were also incorporated into the study (Fatima *et al.*, 2019). These sources presented practical, real-world insights that complemented the scholarly literature, offering valuable perspectives and practical implications, thereby enhancing the depth and applicability of the research outcomes. The integration of diverse sources was instrumental in enriching the study. The research was more all-encompassing since it drew on data from several sources. Data from scholarly articles, case studies, and reports were synthesised to fully grasp the complexity of TQM adoption in hospital settings (Bandyopadhyay *et al.*, 2020). Strict criteria were used to determine which databases would be included in this study: ResearchGate, Google Scholar, Elsevier, Wiley's Online Library, JSTOR, and MDPI. The emphasis was on rigorous assessment and searching for accurate, up-to-date material that matches the study objectives. These databases were chosen for their credibility, extensive coverage, and abundant scholarly literature on healthcare management and quality improvement (Susmita, 2021). In conclusion, the study relied on a diverse range of sources for secondary data, including academic databases, case studies, and statistical reports. The combined contribution of these sources substantially enriched the study by providing comprehensive, varied, and reliable information essential for evaluating the impact of TQM on the quality of care in primary care settings.

2.5 Keywords/Search Terms

The meticulous selection and utilisation of keywords are integral aspects of conducting research, facilitating the identification of relevant sources and aiding in comprehending the study's focus and objectives (Iqbal, Huynh and Maidment, 2022). Keywords are pivotal in guiding researchers towards pertinent material, enabling efficient navigation through a vast pool of literature, and ensuring the alignment of retrieved resources with the study's central theme. In Table 1, a comprehensive compilation of keywords was organised into four categories: Total Quality Management (TQM), primary care, quality improvement, patient satisfaction, and healthcare management (Zahari, Ishak and Justine, 2020). These keywords were strategically chosen to encapsulate various dimensions of the research topic, ensuring a targeted approach towards retrieving articles and studies related to TQM implementation in primary care and its impact on service quality and patient satisfaction (Mengistu and Tolera, 2020).

Keyword search				
1	2	3	4	5

Total Quality Management (TQM)	Total Quality Management (TQM)	Total Quality Management (TQM)	Total Quality Management (TQM)	primary care AND quality improvement
AND	AND	AND	AND	AND
primary care	quality improvement	patient satisfaction	healthcare management	patient satisfaction AND healthcare management

Table 1. Search terms

The strategic application of keywords played a crucial role in the research analysis, primarily during the title and abstract screening phases. The significance of keywords in article analysis is excellent, emphasising their role in identifying and filtering relevant literature. Specific searches were conducted using keywords, allowing for the discovery and choice of studies relevant to the study's aims (Arecco *et al.*, 2022). Keywords were used methodically during the continuous screening process, aiming to expeditiously select papers that contributed directly to answering the research's goals while eliminating unnecessary or irrelevant publications (A. M. C. *et al.*, 2023). The inclusion and exclusion criteria were developed based on a thorough research focus and objectives analysis. These criteria served as guiding principles, ensuring that only studies meeting predefined standards and aligning with the study's scope were considered for inclusion (Astasio-Picado *et al.*, 2022). The iterative screening approach, incorporating keyword-driven filtering at various stages, facilitated reducing studies to those most pertinent to the study's central theme, refining search results to extract only the most relevant resources. In conclusion, the strategic use of keywords significantly contributed to the research process, guiding search results and aligning retrieved literature with the study's objectives (Kosklin, Lammintakanen and Kivinen, 2023). Their deliberate application in the title and abstract screening, iterative screening approaches and stringent inclusion/exclusion criteria ensured the selection of studies that directly addressed the research questions, enhancing the relevance and precision of the study's findings.

2.6 Inclusion and Exclusion Criteria

In research, establishing inclusion and exclusion criteria holds pivotal importance. Such criteria significantly contribute to the research's quality by ensuring that only pertinent, reliable, and aligned data germane to the research questions and objectives are included. A discerning

selection process becomes crucial for enriching the study's quality by selecting and scrutinising appropriate resources, thereby enhancing the overall research outcomes (Morgado-Toscano *et al.*, 2023).

Parameter	Inclusion Criteria	Exclusion Criteria
Year Range	2019-2023	Articles older than 2018
Sector	Healthcare	Articles beyond the healthcare sector
Article Type	Peer-reviewed journal articles	Non-peer-reviewed journal articles
Language	English	Non-English articles

*Table 2*. Inclusion and exclusion criteria

The devised inclusion and exclusion criteria (Table 2) are crucial in shaping the research scope and ensuring the credibility and relevance of the study's dataset. Inclusion criteria specify the parameters vital for inclusion, such as the year range (2019-2023), sector (healthcare), and article type (peer-reviewed journal articles), language (English articles). On the contrary, exclusion criteria delineate the aspects that do not align with the research focus, including articles older than 2018, those beyond the healthcare sector, non-peer-reviewed journal articles, and non-English articles. The systematic methodology of inclusion and exclusion follows a rigorous review process that adheres to the predetermined criteria (Cilli *et al.*, 2022). This method ensures that only studies directly addressing the research question, centred on the influence of Total Quality Management on patient satisfaction, service quality, and overall care quality in primary healthcare, are selected (Tandon *et al.*, 2023). This focused approach leads to extracting a concentrated dataset aligned with the research objectives, enhancing the depth and thoroughness of the study's review process. The impact of these chosen criteria substantially influences the research quality and scope (Knowles and Mikocka-Walus, 2014). The meticulous selection process results in refined studies that precisely meet the research objectives. This, in turn, allows for an in-depth examination and a more comprehensive understanding of the subject matter within a smaller yet more relevant set of papers, thereby enriching the study's quality (Ferreira *et al.*, 2023). Each parameter's selection, ranging from including recent studies (2019-2023) for up-to-date findings to focusing solely on the healthcare sector, is justified based on its direct relevance to the research scope. Emphasising peer-reviewed articles ensures the research's credibility and reliability by upholding academic standards while

excluding non-peer-reviewed or unpublished works aids in eliminating potential biases and maintaining the research's robustness (Kosklin, Lammintakanen and Kivinen, 2023). Ultimately, the meticulous application of inclusion and exclusion criteria significantly shapes the research's direction, refining the dataset to journals explicitly examining the effect of the Total Quality Management Model on Quality of Care in Primary Care. These criteria serve as indispensable tools, refining and improving research outcomes by ensuring a meticulous and targeted approach, effectively contributing to the study's credibility and meaning.

2.7 PRISMA Framework

The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework is a cornerstone in systematic reviews and meta-analyses due to its pivotal role in enhancing transparency, precision, and reliability (Samala *et al.*, 2023). It presents a structured approach, systematically guiding the planning, execution, and reporting of these research methodologies. In the context of this study, the PRISMA framework played a fundamental role in structuring the systematic review process (Aleman-Saravia and Deroncele-Acosta, 2021). A sizable sample of records, numbering in the hundreds, were first culled from many respectable academic sources, including Google Scholar, Elsevier, Wiley Online Library, MDPI, and ResearchGate. These entries included a wide variety of topics, sectors, and sources of information, reflecting the comprehensive scope of the initial collection. To begin culling this massive information, we performed a title screening to determine which papers were most pertinent to our questions (Dabees *et al.*, 2023). The initial dataset of 700 articles was reduced to 290 after this filtering. This initial screening step was followed by an abstract screening to further investigate the articles' content and relevance, ultimately decreasing the data set to 230 publications. The next critical step was determining which articles in the dataset fulfilled the inclusion criteria by using predetermined criteria that aligned with the study aims (Roy *et al.*, 2023). This thorough procedure guaranteed that the chosen articles were appropriate for the study's aims and scope. In the end, one hundred publications were suitable for the study. Following this, the substance of the chosen articles was carefully evaluated (Lee *et al.*, 2022). This analysis aimed to assess the soundness, applicability, and comprehensiveness of the studies included in these publications. The purpose was to learn all there was to learn about each publication. The list was narrowed down even more based on factors like language and year of release. As per the criteria for inclusion and exclusion stated for language (in English) and year of publication (2019-2023), 93 research were excluded,

leaving a final list of 7 publications that matched both the language and year of publication requirements. The 7 papers that made it through the rigorous curation procedure had their relevance to the study's goals confirmed by careful reading (Di Vaio *et al.*, 2023). A thorough and careful selection of publications that contributed substantially to the study's aims and gave valuable insights into the effect of total quality management on the standard of care in primary healthcare settings was the outcome of a rigorous process governed by the PRISMA framework.
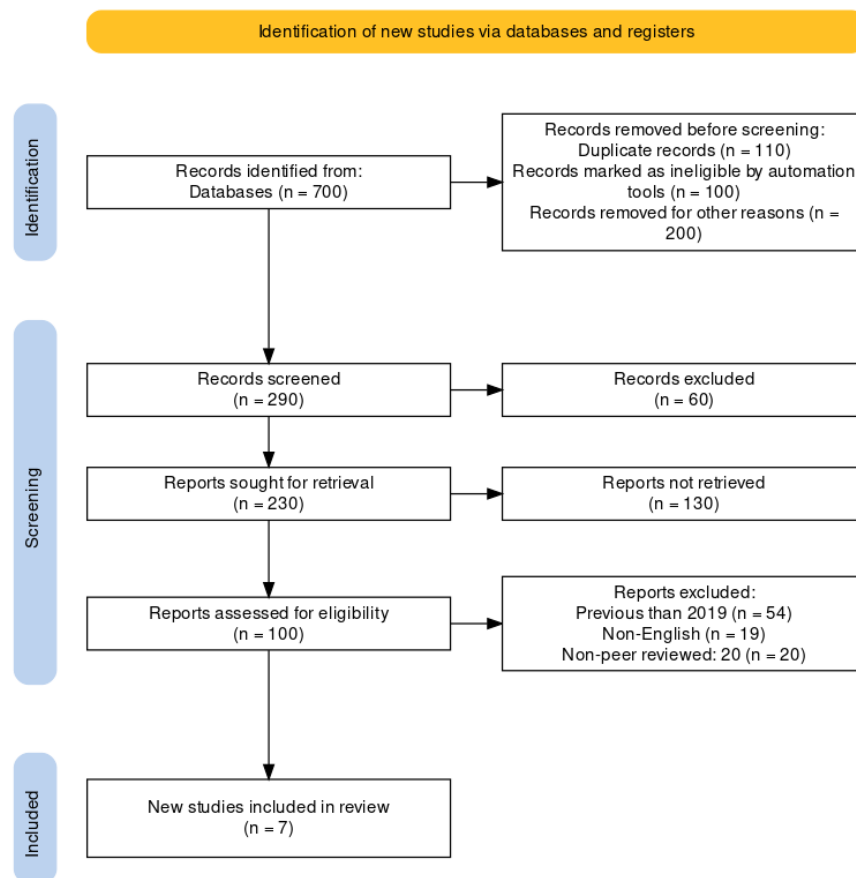
Figure 3. Prisma Flow Diagram

(Source: Author Contribution)

The study objectives of determining the effect of TQM on care quality in primary care settings are addressed by this methodology framework, which guarantees a systematic and complete examination of relevant material.

3.   Findings and Discussion

3.1 Findings

Study	Aim	Method	Main Findings

Nguyen and Nagase (2019)	This investigation aims to examine how a healthcare organisation's adoption of Total Quality Management affects the quality of treatment provided to patients.	In April 2018, in the hospital in Vietnam, 516 inpatients were given self-completion questionnaires.	Total Quality Management had a noteworthy consequence on patient satisfaction, and the perceived service quality and the perceived service quality had the positive effect on the patient satisfaction.
Daqar and Constantinovits (2020)	The goal of this research is to discover how does total quality management, also known as TQM, may be used to improve the quality of private healthcare services.	Conducted a questionnaire-based survey among administrative employees (selected via stratified sampling) in private hospitals and healthcare centres	All TQM factors were positively associated with each other in healthcare sector, with employee involvement, customer satisfaction, top management commitment and continual improvements, showing a positive connection with quality of service. However, processes had a negative direct relationship with service quality.
Aburayya et al (2020)	This research aims to isolate and quantify the CSFs influencing hospitals' adoption of Total Quality Management (TQM).	Employed a literature review to identify CSFs for TQM implementation in healthcare between 2010 and 2020. Utilised quantitative methods, including a questionnaire administered to senior staff in two public hospitals in Dubai, with 356 questionnaires analysed (response rate of 59.3%).	Effective TQM implementation in hospitals requires abundant top management commitment, employee involvement, training and education, recognition and reward, process management, strategic planning, organisation culture, information analysis, customer focus, and continuous improvement. Customer focus and Top management commitment were considered the most significant CSFs

			affecting hospital TQM employment.
Alshourah (2021)	The objective of this study is to assess the degree of the Total Quality Management, also known as TQM, adoption and connection amid TQM and the quality performance in recognised hospitals in Jordan.	Utilised a questionnaire to collect data from 330 respondents, including 140 participants from five Private Jordanian Hospitals, employing Confirmatory Factor Analysis (CFA) and multiple linear regression for data analysis.	The study found a high level of TQM implementation in Private Jordanian Hospitals and significant relationships between various dimensions of TQM and quality performance. Specifically, leadership commitment, strategic quality planning, information and data, training and participation, customer focus, and continuous improvement significantly impacted quality performance.
Alkhaldi and Abdallah (2022)	The objective of this research is to analyse how total quality management's (TQM) soft and hard elements affect quality outcomes and patient satisfaction.	The core data came from a survey sent to 312 medical staff members working at private medical facilities in Jordan. To test hypotheses, method was structural equation modelling (SEM).	TQM was found to have an important, beneficial impact on the quality of the care delivered and patient satisfaction. The relationship amid patient satisfaction and Total Quality Management was moderated positively by quality performance.
Grossu-Leibovica and Kalkis (2023)	The objective of this investigation is to examine how does the Total Quality Management techniques affect healthcare facilities' ability to provide high-quality service and delighted patients.	Conducted data collection via multiple databases, including Web of Sciences (WOS), EBSCO, Scopus, Medline, and PubMed, initially identifying 573 articles and finalising 24 usable articles after eliminating non-relevant ones. Specifically focused on 12 articles linked to TQM, client	TQM tools and practices significantly improve client satisfaction and service quality in healthcare sectors. Implementation of TQM tools enhances customer satisfaction, improves patient satisfaction, and positively impacts operational and overall performance.

		satisfaction, and service quality.	
Hussain et al (2023)	To inspect the effect of the Total Quality Management practises on the quality of care in Jordanian hospital systems.	Two hundred twenty-two participants from several hospital systems in Jordan were surveyed using an online questionnaire.	Using Structural Equation Modelling (SEM), it was shown that public hospitals in Jordan positively associated with supplier quality management, quality performance, and customer attention.

Table 3. **Main Findings from Analysis of Studies**

3.2 Discussion

RO1: To investigate the role of Total Quality Management (TQM) in improving patient satisfaction and service quality.

Several recent researches have explored the nexus between Total Quality Management (TQM) and its consequential impacts on service quality and patient satisfaction in healthcare settings. Nguyen and Nagase (2019) established a significant influence of TQM on perceived patient satisfaction and service quality. Their study revealed that adopting TQM principles had a tangible effect on enhancing the perceived quality of services provided by healthcare facilities, consequently positively influencing patients' satisfaction levels. Similarly, Daqar and Constantinovits (2020) scrutinised various TQM factors within the private healthcare sector. Their findings underscored a positive interrelationship among all TQM factors in private healthcare. Notably, employee involvement, customer satisfaction, top management commitment and continual improvements were identified as pivotal factors that positively correlate with service quality. This highlights the multifaceted impact of TQM practices in fostering a more efficient and service-oriented healthcare environment.

Moreover, Aburayya et al. (2020) delved into the critical success factors (CSFs) imperative for effective TQM implementation in hospital settings. Their comprehensive analysis revealed that top management commitment and customer focus influenced successful TQM implementation (Almuhanadi *et al.*, 2020). This underscores the significance of leadership dedication and a customer-centric approach in embedding TQM practices within hospital frameworks. Building upon these notions, Alkhaldi and Abdallah (2022) explored the implementation level of TQM within Private Jordanian Hospitals. Their study unveiled a high degree of TQM implementation in

these healthcare institutions. The study highlighted that leadership commitment, strategic quality planning, information and data management, training and participation, customer focus, and continuous improvement were significantly associated with enhanced quality performance (Al Zaidan et al., 2022; Ali et al., 2023). These findings emphasise the diverse dimensions of TQM contributing to bolstering service quality within hospital settings (Alshrbaji, Mohammed and Shamayleh, 2022a). In summary, these studies collectively elucidate the pivotal role of Total Quality Management (TQM) in improving service quality and patient satisfaction within healthcare facilities (Katritama, Lestari and Arifijanto, 2022). They underscore the multifaceted impact of various TQM factors, such as leadership commitment, customer focus, continuous improvement, and employee involvement in fostering an environment conducive to improved service delivery and higher patient contentment (Nguyen & Nagase, 2019; Daqar & Constantinovits, 2020; Aburayya et al., 2020; Alkhaldi & Abdallah, 2022).

RO2: To assess the impact of TQM on overall quality performance

Total Quality Management (TQM) has emerged as a critical factor influencing various dimensions of quality performance within the healthcare sector. A series of studies have delved into different aspects of TQM implementation and its effects on enhancing service quality, patient satisfaction, and overall performance in healthcare settings. Nguyen and Nagase's (2019) investigation underscored the significant influence of TQM on perceived service quality and patient satisfaction. This indicates that adopting TQM principles within healthcare facilities positively affects the perceived quality of services offered, subsequently augmenting patient satisfaction (Lebcir and Sideras, 2021a). This suggests that integrating TQM practices contributes positively to the overall quality performance of healthcare organisations. Daqar and Constantinovits (2020) shed light on the interconnectedness of various TQM factors in the private healthcare sector. Their findings highlighted that employee involvement, customer satisfaction, top management commitment, and continual improvements exhibited positive relationships with service quality. However, they also noted a negative direct association between service quality and processes (Alshrbaji, Mohammed and Shamayleh, 2022b). This illustrates the complex dynamics within TQM practices and their impact on overall quality performance, emphasising the need for a comprehensive approach considering different factors. Aburayya et al. (2020) conducted a study to identify the Critical Success Factors (CSFs) influencing the implementation of TQM in hospitals. They emphasised the significance of customer focus and top management commitment as the most

impactful CSFs affecting TQM implementation in healthcare settings. This underlines the critical significance of leadership commitment and customer-centric initiatives in successfully adopting TQM, enhancing overall quality performance (Alqasmi, 2022b).

There is strong evidence that TQM positively affects quality performance in Private Jordanian Hospitals, as discovered by Alkhaldi and Abdallah (2022). Their research showed that certain aspects of TQM—commitment from top management, strategic planning for quality, data and information management, employee engagement and training, a focus on customers, and a dedication to constant improvement—are crucial to achieving better quality results. This highlights the multifaceted character of TQM and its all-encompassing effect on healthcare organisations' overall quality performance. The impact of TQM tools on healthcare service quality and patient satisfaction was studied by Grossu-Leibovica and Kalkis (2023). Results showed that healthcare organisations considerably increased service quality and customer satisfaction after implementing TQM tools. They emphasised how TQM tools improve customer happiness, patient satisfaction, and business results. That's why it's so crucial for healthcare facilities to employ specific tried-and-true TQM approaches to boost their quality performance. Hussain et al. (2023) studied the influence of TQM practises on the quality of care in Jordanian healthcare institutions. Supplier management of quality, customer attention, and quality performance were found to have favourable correlations using Structural Equation Modelling (SEM). As this finding illustrates, TQM practises, such as supplier management along with customer-oriented methods, have been shown to improve the overall performance of healthcare organisations as a whole. In conclusion, the collective evidence from these studies underlines the significant impact of Total Quality Management (TQM) on enhancing service quality, patient satisfaction, and overall performance within healthcare organisations (van Schoten *et al.*, 2016). Integrating TQM principles, including leadership commitment, customer focus, continual improvements, and efficient processes, contribute positively to achieving higher-quality performance in healthcare settings.

RO3: To identify critical aspects for successful TQM application in private healthcare

Total Quality Management (TQM) is pivotal in improving the quality of care within healthcare settings. In private healthcare, identifying critical factors that influence the successful implementation of TQM is essential for improving the quality of care, especially in primary care settings (Asante and Ngulube, 2020). This discussion elaborates on critical factors identified in studies and examines their impacts on the quality of care in primary care. Aburayya et al. (2020)

emphasised top management commitment as a crucial success factor for hospital TQM implementation. Leadership dedicated to TQM is essential in creating a quality culture, defining success, and allocating resources. This dedication permeates all levels of primary care, making way for a focus on quality procedures (SAVAŞ and YACAN, 2022). With the backing of upper management, you may rest assured that money will be set aside to fund quality improvement projects, employee education, and new technological investments. Quality standards, patient-centered care, and staff engagement in quality improvement efforts are all strengthened by solid leadership commitment. In primary care settings, this promotes an atmosphere where healthcare providers are encouraged to provide high-quality treatment, improving patient satisfaction, health outcomes, and the overall quality of care (Tresnasari, Nurcahyo and Farizal, 2021).

Aburayya et al. (2020) identified customer focus as another significant CSF in hospital TQM implementation. This factor involves understanding and meeting the needs and expectations of patients. In primary care, a patient-centric approach involves active listening, effective communication, and patient involvement in decision-making processes. Customer focus ensures personalised care, enhanced patient engagement, and satisfaction (Abu Daqar and Constantinovits, 2020b). In primary care settings, it allows healthcare providers to tailor services to individual patient needs, resulting in improved adherence to treatment plans, better health outcomes, and increased patient trust and loyalty. Alshourah (2021) highlighted leadership commitment, strategic quality planning, and continuous improvement as essential dimensions in TQM implementation. Strategic planning involves setting quality goals, establishing protocols, and creating systems for monitoring and evaluation. Effective planning aligns quality objectives with organisational goals, facilitating systematic improvements in care delivery. Another crucial CSF in hospitals' TQM adoption is customer attention, as Aburayya et al. (2020) noted. This aspect requires being aware of and catering to the wishes of patients. In primary care, a patient-focused strategy comprises active listening, good communication, and patient engagement in decision-making processes. Focusing on the needs of the customer guarantees individualised treatment, more patient participation, and contentment. This technology's use in primary care results from commitment to treatment programmes, improved health outcomes, and enhanced patient loyalty and confidence. Leadership buy-in, strategic planning for quality, and ongoing enhancement are three aspects of TQM that Alshourah (2021) cited as crucial to successful implementation. Goals for quality, together with associated processes and measurement frameworks, are established as part of the

strategic planning process. Care delivery may be systematically improved When quality and organisational goals are in sync. Care processes, the number of mistakes, and patient safety may all benefit from strategic quality planning (Salleh *et al.*, 2018). This means improved primary care quality, safety, and efficiency through standardised standards, efficient workflows, shorter wait times, and simplified services. Strategic quality planning ensures systematic approaches to improve care processes, reduce errors, and enhance patient safety (Lebcir and Sideras, 2021b). In primary care, this translates to standardised protocols, efficient workflows, reduced wait times, and streamlined services, resulting in higher quality, safer, and more efficient care delivery.

The importance of data and information management in TQM adoption was emphasised by Alshourah (2021). Care procedures, performance indicators, and improvement opportunities may all be better understood with accurate data gathering, analysis, and application. Evidence-based decision-making, trend detection, and patient outcome tracking are all made possible by efficient primary care data management(Wajidi *et al.*, 2022). As a result, the quality of care is enhanced, as best practices are more easily implemented, proactive intervention is made possible, mistakes are reduced, and greater care coordination is achieved. Training and employee buy-in are critical to a successful TQM rollout, as noted by Alshourah (2021). Staff members who have received the appropriate training are more likely to participate in quality improvement efforts. Cultures of learning, creativity, and cooperation are fostered via training and involvement in healthcare settings. Better patient experiences and results may be achieved via staff engagement, which promotes ownership of quality efforts, improves communication, and creates a culture of continuing education and growth (Stavelin and Sandberg, 2023).

The importance of employee participation in TQM implementation was emphasised by Aburayya et al. (2020). Employee commitment and sense of agency may be strengthened by giving them a voice in the healthcare organisation's choice-making, problem-solving, and improvement processes. In Primary Care settings, actively involving staff fosters a sense of ownership, leading to improved patient interactions, innovative solutions, and better care coordination. Effective employee involvement encourages open communication, idea-sharing, and collaborative efforts, fostering a patient-centred approach (Bashir *et al.*, 2022). Engaged staff contribute to a positive work environment, promoting patient trust, satisfaction, and, ultimately, better health outcomes. As highlighted by Alshourah (2021), continuous improvement is integral to successful TQM. In Primary Care, fostering a continuous learning and improvement culture ensures that care practices

evolve with emerging needs and advancements. Regularly evaluating processes, workflows, and patient outcomes allows for adjustments, optimisations, and innovation. Implementing quality improvement initiatives such as regular audits, performance reviews, and ongoing training programs helps healthcare providers in Primary Care settings identify areas for enhancement (Stenlund *et al.*, 2019). This continuous quest for improvement translates into better care delivery, increased patient safety, and improved clinical outcomes.

Teamwork is fundamental in TQM. In Primary Care, interdisciplinary collaboration among healthcare professionals, like doctors, allied health professionals, and nurses is crucial in delivering comprehensive care (Damsin *et al.*, 2023). Efficient teamwork promotes seamless care transitions, reduces errors, and enhances patient outcomes. Shared responsibilities, effective communication, and mutual respect among team members contribute to a patient-centred approach, improving the overall quality of care. Daqar and Constantinovits (2020) pointed out the importance of processes in TQM, albeit negatively related to service quality. However, in Primary Care, optimised and well-defined processes are essential for delivering efficient and effective care (Mitreva and Kirovski, 2021). Establishing transparent workflows, standardised protocols, and evidence-based practices streamline patient care processes. Effective processes ensure consistency in care delivery, reducing errors, improving patient satisfaction, and enhancing the overall quality of care (Ding *et al.*, 2023).

The exploration of Total Quality Management (TQM) critical factors in private healthcare settings, particularly in primary care, elucidates essential elements vital for enhancing the quality of care (Mandel and Cady, 2022). Leadership commitment, customer focus, strategic planning, information management, training, continual improvement, employee involvement, teamwork, and streamlined processes are pivotal factors shaping the quality of care delivery within primary care settings. Effective TQM implementation driven by solid leadership fosters a culture of quality improvement, ensuring patient-centred approaches and staff engagement (Servetkienė *et al.*, 2023a). Prioritising customer focus in primary care settings tailors services to individual patient needs, reinforcing satisfaction, trust, and better health outcomes. Strategic planning and information management enable systematic improvements and evidence-based decision-making, while training and continual improvement foster a culture of learning, innovation, and better patient experiences (Islam and Salam, 2022). Employee involvement and teamwork promote collaboration, contributing to comprehensive care and reducing errors, while optimised processes

ensure efficient and consistent care delivery. These TQM-driven factors synergistically enhance the quality of care in primary care settings, underscoring the need for a holistic approach to achieve superior patient outcomes and satisfaction (Basnet, 2020).

3.3 Theoretical and practical implications of findings

The findings extracted from a systematic review exploring the influence of Total Quality Management (TQM) on the quality of care in primary healthcare settings offer critical theoretical and practical implications. These implications pave the way for comprehensive insights into TQM's potential contributions and applications enhancing service quality, patient satisfaction, and overall quality performance in primary care contexts (Servetkienė *et al.*, 2023b). The amalgamation of diverse TQM dimensions, including leadership commitment, customer focus, strategic planning, information management, training, continual improvement, employee involvement, teamwork, and streamlined processes, elucidates the multidimensional nature of TQM in primary care (RABELO BANDEIRA *et al.*, 2021). These dimensions collectively underscore the complexity and interdependencies involved in implementing TQM to elevate the quality of care. Studies emphasising top management commitment and leadership dedication underscore the importance of establishing a quality culture within healthcare organisations (Reig-Garcia *et al.*, 2021). This highlights the need for strong leadership support to embed TQM principles, fostering a patient-centred approach and motivating staff involvement in quality improvement initiatives. The identified TQM factors, especially customer focus, highlight the significance of adopting a patient-centric approach in primary care. Understanding patient needs, active communication, and involvement in decision-making processes is crucial in tailoring services to individual patient requirements, ultimately leading to heightened patient engagement, satisfaction, and loyalty (Bay Júnior *et al.*, 2022). Despite the negative relationship between processes and service quality, optimising and defining processes are vital in ensuring efficient care delivery. The emphasis on continual improvement underscores the necessity of regularly evaluating and refining processes to address emerging needs and enhance care quality in primary care settings (Saes *et al.*, 2022).

Implementing TQM principles, guided by the identified critical factors, offers a practical framework for healthcare management in primary care. These factors guide organisational decision-making, resource allocation, and strategy development to bolster service quality and patient satisfaction (Smits *et al.*, 2022). The identified TQM factors provide a structured framework for designing quality improvement initiatives in primary care settings. Leadership commitment,

employee involvement, and continuous improvement initiatives can be organised systematically to foster a culture of learning, innovation, and teamwork. The emphasis on teamwork underscores the importance of collaborative efforts among healthcare professionals in primary care. Facilitating effective interdisciplinary communication, shared responsibilities, and mutual respect among team members can significantly contribute to comprehensive and seamless care delivery. Information management emerges as a critical factor in TQM. Harnessing data for evidence-based decision-making enables healthcare providers in primary care to identify trends, track patient outcomes, and implement best practices (Fong, 2017). This promotes proactive interventions, reduces errors, and ensures better care coordination, ultimately enhancing overall care quality. Strategic quality planning, informed by TQM principles, aids in setting clear quality objectives aligned with organisational goals. This facilitates systematic improvements in care delivery processes, reduces errors, and enhances patient safety, resulting in higher-quality and more efficient care in primary care settings. Theoretical and practical implications from the reviewed studies underscore the multifaceted nature of Total Quality Management (TQM) and its significant influence on the quality of care in primary healthcare settings. Implementing TQM principles guided by these identified critical factors can offer a comprehensive approach to improve service quality, patient satisfaction, and overall quality performance in primary care, emphasising the need for a patient-centred, data-driven, and collaborative healthcare environment.

4. Conclusion

4.1 Summarised Findings

The systematic review of Total Quality Management (TQM) in healthcare revealed critical insights across three key objectives. First, TQM significantly influenced perceived service quality and patient satisfaction. Second, all TQM factors were positively correlated in private healthcare, except for processes, which showed a negative relationship with service quality. Third, successful TQM implementation in the hospitals requires abundant top management commitment, process management, training, strategic planning, employee involvement, organisation culture, information analysis, customer focus and continuous improvement. Customer focus and top management commitment and emerged as the most impactful factors in TQM implementation. Additionally, high TQM implementation levels in Private Jordanian Hospitals showed significant relationships between various TQM dimensions and quality performance. The study highlighted the positive effect of TQM on quality performance and patient satisfaction, with quality

performance acting as a mediator between TQM and patient satisfaction. TQM tools significantly enhanced service quality client and patient satisfaction, positively impacting operational performance. Furthermore, Structural Equation Modeling confirmed the positive relationship amid customer focus, supplier quality management, and quality performance in Jordanian public hospitals.

These findings have profound theoretical and practical implications. The amalgamation of diverse TQM dimensions, including leadership commitment, customer focus, strategic planning, information management, training, continuous improvement, employee involvement, teamwork, and streamlined processes, emphasises the multidimensional nature of TQM in enhancing primary care quality. Strong leadership commitment and customer-centricity are pivotal in embedding TQM principles, fostering a patient-centred approach, and motivating staff involvement in quality improvement initiatives. Implementing TQM principles guided by these identified critical factors offers a practical framework for healthcare management, aiding organisational decision-making, resource allocation, and strategy development to enhance service quality and patient satisfaction. Additionally, emphasis on teamwork, information management, strategic planning, and continual improvement provides a structured approach to designing quality improvement initiatives and promoting a culture of learning, innovation, and collaboration. These findings underscore the need for a patient-centric, data-driven, and collaborative healthcare environment to drive quality improvement in primary care settings.

4.2 Limitations

Limitations in the methodology of this study, employing a systematic literature review (SLR), could influence the overall understanding and depth of insights gathered. Despite the systematic approach, certain limitations need consideration (Semantha *et al.*, 2020). Firstly, the SLR methodology relies on the available literature and might omit recent studies or unpublished data not included in scholarly databases, potentially limiting the comprehensiveness of the findings. Additionally, the inclusion criteria for selecting studies might introduce bias, as certain studies meeting specific criteria could be inadvertently excluded, affecting the breadth of perspectives on TQM in primary care (Salazar-Reyna *et al.*, 2022). Moreover, the SLR methodology inherently depends on the quality and rigour of the included studies. Variations in research methodologies, sample sizes, and measurement tools across studies might impact the comparability and synthesis of findings, influencing conclusions' generalizability. Additionally, while the SLR offers a

comprehensive overview, it might not capture nuanced or context-specific aspects of TQM implementation in diverse private healthcare settings, potentially limiting the applicability of findings to various healthcare environments (KAUR and MITTAL, 2022). Furthermore, the reliance on existing literature might constrain the exploration of emerging trends, innovative practices, or real-time challenges encountered in the practical application of TQM within primary care settings. These limitations should be considered when interpreting the implications and recommendations derived from this systematic review (Narula, Sharma and Nagpal, 2023).

4.3 Recommendations

Future studies could build upon this study to expand the understanding of Total Quality Management's (TQM) impact on primary care quality. To fully harness the potential of this study, researchers could explore specific aspects that warrant further investigation. Firstly, examining the role of technology integration in TQM implementation within primary care settings could be valuable (Steijger *et al.*, 2022). Investigating how technological advancements, such as electronic health records or telemedicine, influence TQM's effectiveness in improving service quality and patient satisfaction would provide insights into leveraging digital solutions for enhanced healthcare delivery. Moreover, conducting longitudinal studies to track the long-term effects of TQM implementation on patient outcomes and healthcare quality would offer valuable insights. Understanding how sustained TQM practices impact health outcomes, patient engagement, and healthcare provider satisfaction over extended periods would provide a more comprehensive understanding of TQM's enduring effects. Additionally, exploring cultural and contextual factors influencing TQM adoption in different healthcare settings would be beneficial. Investigating how organisational culture, leadership styles, and regional variations impact the successful deployment of TQM could guide tailored strategies for effective implementation in diverse healthcare environments. Furthermore, comparative studies across various healthcare systems or countries could shed light on the transferability of TQM practices and their effectiveness in different healthcare contexts. Analysing how TQM operates within varying regulatory frameworks and cultural landscapes would contribute to a more globally applicable understanding of its primary care quality improvement implications. These future research directions can further advance the evidence base on TQM's role in enhancing primary care quality and patient satisfaction.

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