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IMPROVING SERVICE QUALITY IN PRIMARY HEALTH CARE: EVIDENCE FROM FIRST-LEVEL HEALTH FACILITIES

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Abstract
The quality of primary health care is a key factor in improving patient satisfaction and strengthening the performance of the health care system. Primary health care facilities play a strategic role as the first point of contact for the public in accessing health care services. This study analyzes improvements in primary health care (PHC) service quality. A scoping review using the Arksey and O'Malley framework was conducted. Eighteen articles from PubMed, ScienceDirect, Google Scholar, and SpringerLink were synthesized, focusing on service quality and patient satisfaction in PHC. Service quality, particularly SERVQUAL dimensions (reliability, responsiveness, assurance, empathy, tangibles), consistently dictates patient satisfaction. Key determinants span interpersonal factors (communication, staff attitudes), systemic elements (access, waiting time, care continuity), and technical quality (clinical competence). Strategies to elevate quality encompass patient-centered care implementation, system reform, service digitization, and staff competency enhancement. Healthcare administrators should prioritize comprehensive capacity-building, integrate digital health technologies, and evaluate systemic workflows to actualize patient-centered care and drive structural reforms. Unlike narrowly focused reviews, this study provides a novel holistic synthesis of interpersonal, technical, and systemic dimensions, offering an evidence-based framework for targeted interventions in PHC settings. Improving PHC quality demands the integration of interpersonal, technical, and systemic dimensions. Optimizing patient-centered approaches enhances satisfaction and ensures healthcare system sustainability.
Keywords: *Patient Satisfaction; Primary Health Care Facilities; Primary Health Care; Quality of Care; SERVQUAL*

Abstrak
Kualitas layanan kesehatan primer merupakan faktor kunci dalam meningkatkan kepuasan pasien dan memperkuat kinerja sistem layanan kesehatan. Fasilitas layanan kesehatan primer memainkan peran strategis sebagai titik kontak pertama bagi masyarakat dalam mengakses layanan kesehatan. Penelitian ini menganalisis peningkatan kualitas layanan kesehatan primer (Primary Health Care/PHC). Tinjauan pelingkupan (scoping review) menggunakan kerangka kerja Arksey dan O'Malley telah dilakukan. Delapan belas artikel dari PubMed, ScienceDirect, Google Scholar, dan SpringerLink disintesis, dengan fokus pada kualitas layanan dan kepuasan pasien di PHC. Kualitas layanan, khususnya dimensi SERVQUAL (keandalan, daya tanggap, jaminan, empati, bukti fisik), secara konsisten menentukan kepuasan pasien. Determinan utama mencakup faktor interpersonal (komunikasi, sikap staf), elemen sistemik (akses, waktu tunggu, kesinambungan perawatan), dan kualitas teknis (kompetensi klinis). Strategi untuk meningkatkan kualitas meliputi implementasi perawatan yang berpusat pada pasien, reformasi sistem, digitalisasi layanan, dan peningkatan kompetensi staf. Administrator layanan kesehatan harus memprioritaskan pengembangan kapasitas yang komprehensif, mengintegrasikan teknologi kesehatan digital, dan mengevaluasi alur kerja sistemik untuk mewujudkan perawatan yang berpusat pada pasien serta mendorong reformasi struktural. Berbeda dengan tinjauan yang berfokus sempit, penelitian ini menyajikan sintesis holistik yang baru mengenai dimensi interpersonal, teknis, dan sistemik, menawarkan kerangka kerja berbasis bukti untuk intervensi yang ditargetkan dalam pengaturan PHC. Peningkatan kualitas PHC menuntut integrasi dimensi interpersonal, teknis, dan sistemik. Mengoptimalkan pendekatan yang berpusat pada pasien akan meningkatkan kepuasan dan memastikan keberlanjutan sistem layanan kesehatan.
Kata Kunci: Kepuasan Pasien; Fasilitas Layanan Kesehatan Primer; Layanan Kesehatan Primer; Kualitas Layanan; SERVQUAL

INTRODUCTION

Primary health care is the cornerstone of the health system because it serves as the public's first point of contact for comprehensive, continuous, and accessible health services. The World Health Organization identifies primary health care as a key strategy for achieving

Universal Health Coverage (UHC) and improving public health. In practice, primary-level health facilities play a crucial role in delivering integrated promotive, preventive, curative, and rehabilitative care. However, increased access to health services has not always been accompanied by an improvement in the quality of care to optimal levels (Kareba et al., 2023; Solikha et al., 2025).

The quality of health care is a key indicator in assessing the success of primary health care facilities. High-quality care enhances patient satisfaction, strengthens public trust in the health system, and improves the overall effectiveness of health care services. Conversely, subpar care can lead to patient complaints, low adherence to treatment, and reduced utilization of primary health care facilities. Research indicates that patient satisfaction is closely linked to dimensions of service quality such as reliability, responsiveness, assurance, empathy, and tangible evidence provided by healthcare personnel and healthcare facilities (Asti et al., 2024; Igiany & Hapsari, 2022).

In Indonesia, primary healthcare facilities such as community health centers (puskesmas), primary clinics, and private practices serve as the frontline of public healthcare services, particularly since the implementation of the National Health Insurance (JKN) program. The increase in the number of JKN participants has led to a rise in patient visits to primary healthcare facilities. This situation presents new challenges, including a heavy service workload, shortages of healthcare personnel, and the need for continuous improvement in service quality. Several studies report that patients remain dissatisfied with waiting times for services, limited infrastructure, healthcare worker communication, and the mismatch between services provided and patient expectations (Marhenta, Satibi and Wiedyaningsih, 2018; Endartiwi and Setianingrum, 2019; Dusra, 2020).

Health system transformation and advancements in information technology have also influenced public demands for primary healthcare services. Today, the public not only demands easy access to services but also services that are fast, safe, responsive, and patient-centered. The digitization of healthcare services, the use of electronic health records, and the strengthening of quality management systems are crucial components in efforts to improve service quality at primary healthcare facilities. The implementation of health technology is known to help expedite services, improve the work efficiency of healthcare personnel, and increase patient satisfaction with healthcare services (Ahsan & Zahed, 2022).

Issues regarding service quality at primary healthcare facilities are also influenced by internal and external organizational factors. Internal factors include the competence of healthcare personnel, availability of facilities, service management systems, and organizational work culture. Meanwhile, external factors include government policies, the healthcare financing system, the distribution of healthcare personnel, and the socioeconomic characteristics of the community. The imbalance in the distribution of healthcare personnel and the high workload at primary healthcare facilities remain challenges in maintaining the quality of healthcare services across various regions (Solikha et al., 2025).

The relationship between service quality and patient satisfaction in primary healthcare facilities. However, most studies still focus on aspects of patient satisfaction without comprehensively evaluating sustainable service quality improvement strategies. In fact, improving service quality requires a multidimensional approach involving the strengthening of human resources, quality management systems, service innovation, and periodic service evaluation. Therefore, the objective of this study is to analyze service quality improvement in primary health care. This research is important to provide an overview of the factors influencing the quality of primary health care services as well as effective service quality improvement strategies. The research results are expected to serve as a foundation for the development of

policies and innovations in primary health care that are of higher quality, patient-centered, and capable of enhancing public satisfaction and trust in primary health care facilities.

METHOD

This study employs a scoping review method to identify, map, and analyze various scientific evidence related to improving the quality of services at first-level health facilities. The scoping review approach was chosen because it provides a broad overview of the concepts, factors, strategies, and implementation of primary health care quality improvement based on various types of published research. This method is also suitable for identifying research gaps and directions for future research (Munn et al., 2018).

The conduct of the scoping review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) guidelines developed by Tricco et al. These guidelines were used to ensure that the processes of identifying, selecting, extracting, and reporting articles were conducted systematically and transparently (Tricco et al., 2018).

Literature Search Strategy

The literature search strategy in this study was designed using the PICO approach as follows: First, Population (P), patients, healthcare workers, and primary healthcare facilities such as community health centers, primary clinics, and primary healthcare services; second, Intervention (I), efforts to improve the quality of healthcare services such as strengthening quality management, enhancing the competence of healthcare workers, service digitization, and patient-centered care; third, Comparison (C), health services prior to the intervention, standard care, or healthcare facilities with varying service quality; fourth, Outcome (O), improvements in service quality, patient satisfaction, service effectiveness, service efficiency, and increased access to healthcare services.

The PICO approach is used to help researchers define the research focus, determine search keywords, and facilitate the process of identifying articles relevant to the research objectives.

Article searches were conducted electronically through several open-access scientific databases, namely PubMed, ScienceDirect, Google Scholar, and SpringerLink. Keywords were combined using the Boolean operators “AND” and “OR” to retrieve relevant articles. An example of the search strategy used is “service quality” OR “health care quality”) AND (“primary health care” OR “first-level health facilities”) AND (“patient satisfaction” OR “quality improvement.”

The article search was limited to publications in English and Indonesian published between 2019 and 2025 to ensure the data obtained remains relevant to current developments in primary health care.

Inclusion criteria for this study include original research articles; articles discussing service quality at primary health care facilities; articles available in full text; articles accessible via open access; and those using quantitative, qualitative, or mixed-methods approaches. Exclusion criteria include articles that are editorials, opinion pieces, or conference abstracts; articles that do not address the improvement of primary healthcare service quality; duplicate articles; and articles not available in full text.

Article Selection Process

Article selection was conducted based on the PRISMA-ScR flowchart, comprising the identification, screening, eligibility assessment, and final inclusion stages. During the identification stage, all articles retrieved from the databases were collected, and duplicate articles were removed. Subsequently, screening was performed based on titles and abstracts according to the inclusion and exclusion criteria. Articles meeting the criteria were then

subjected to a full-text review to determine those eligible for inclusion in the final synthesis. The article selection process was conducted in accordance with the PRISMA-ScR guidelines. A total of 342 articles were identified from various databases. After removing duplicates, 268 articles remained for title and abstract screening. A total of 192 articles were eliminated because they were irrelevant to the research topic.

A total of 76 articles were then subjected to full-text assessment based on inclusion and exclusion criteria. Of these, 58 articles were excluded because they did not meet the research criteria, did not address the quality of primary health care, or did not include patient satisfaction outcomes. Finally, 18 articles met the criteria and were included in the scoping review analysis.

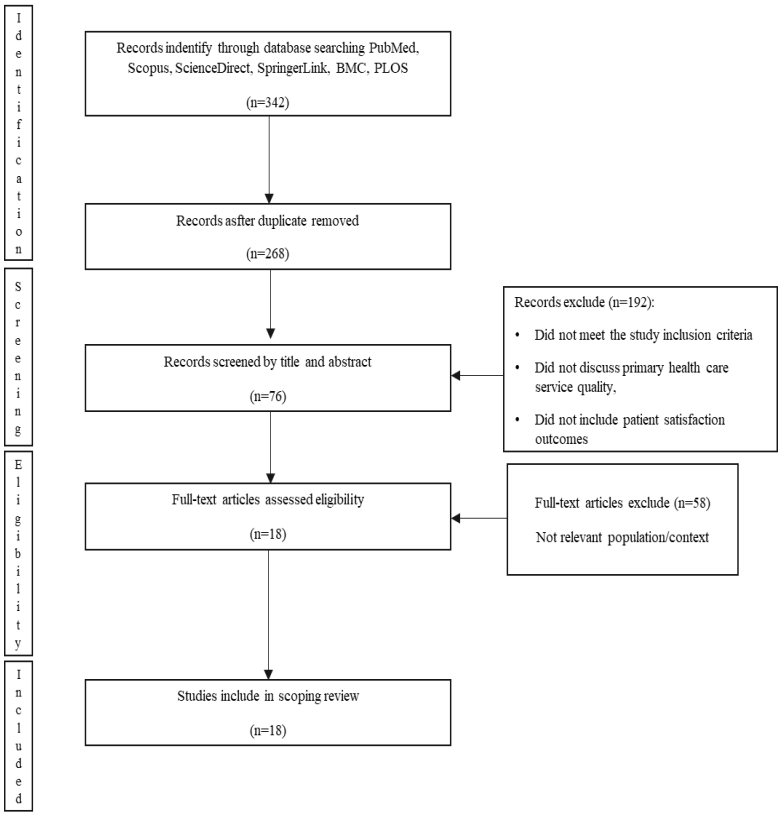


Figure 1. PRISMA-ScR Flow Chart

Data Extraction

Data from articles that met the criteria were extracted using a summary table that included author names, year of publication, country of study, study design, study population, type of intervention, indicators of service quality, and primary study outcomes.

Data extraction was conducted systematically to facilitate the analysis and mapping of research results. The data extraction is presented in Table 1.

Data Analysis

Data were analyzed using descriptive and thematic approaches. Research findings with similar themes were grouped based on factors influencing service quality, strategies for improving service quality, and the impact of interventions on patient satisfaction and the effectiveness of primary health care. The synthesis results were then presented in narrative and tabular forms to provide a comprehensive overview of service quality improvements at primary health care facilities.

Tabel 1. Data Extraction

Author and year	Research title	Population	Interventions	Comparison	Results
Sukmaningsih et al., (2026)	Determinants of Outpatient Satisfaction Based on Health Service Quality Dimensions in Primary Health Care Applied Bachelor Program in Health Information Management	Outpatients receiving care at primary health care facilities (Puskesmas)	Dimensions of healthcare quality based on the SERVQUAL concept include: reliability, responsiveness, assurance, empathy, and tangibility	Comparison of patients' perceptions of good and poor service quality across each dimension of healthcare services	Level of outpatient satisfaction with health services at primary health care facilities
Harma and Ishak (2025)	The Influence of Health Service Quality on Patient Satisfaction: A Study at Bontonompo 2 Primary Health Center	Outpatients aged ≥12 years receiving care at Bontonompo 2 Puskesmas	Healthcare service quality based on the SERVQUAL dimensions: tangibles, reliability, responsiveness, assurance, and empathy	Comparison of patients' perceptions of good and poor service quality across each service dimension	Level of outpatient satisfaction with health services at community health centers
Khafifah and Razak (2022)	Relationship of Health Service Quality with Patient Satisfaction BPJS Puskesmas Pangkajene	BPJS outpatients at Pangkajene Puskesmas, Sidenreng Rappang Regency	Healthcare service quality encompassing service access, comfort, interpersonal relationships, and service timeliness	Comparison of patients' perceptions of good and poor service quality across each dimension of healthcare services	Level of BPJS outpatient satisfaction with health services at community health centers
Nur et al. (2026)	SERVQUAL outpatient service quality and patient satisfaction: policy implications at Puskesmas Kabanjahe	Outpatients receiving care at Kabanjahe Health Center	Service quality assessment using the SERVQUAL dimensions: tangibles, reliability, responsiveness, assurance, and empathy	Comparison of patients' perceptions of good and poor service quality across each SERVQUAL dimension	Level of outpatient satisfaction and policy implications for improving the quality of health services
Oktavianti, Indar and Abadi (2022)	Relationship of Service Quality with Patient Satisfaction of BPJS Outpatient in Biru Public Health Center, Bone Regency	BPJS outpatients at Biru Health Center, Bone Regency	Healthcare service quality encompassing the dimensions of tangibles, reliability, responsiveness, assurance, and empathy	Comparison of patients' perceptions of good and poor service quality across each service quality dimension	Level of BPJS outpatient satisfaction with health services at community health centers
Hartanti et al. (2025)	Perbedaan Antara Tingkat Kepuasan Pasien Layanan Kefarmasian di Puskesmas Induk Natar dan Puskesmas Rajabasa Indah	Patients using pharmaceutical services at Natar Main Health Center and Rajabasa Indah Health Center	Pharmacy services based on service quality dimensions such as medication accuracy, pharmacist communication, service speed, and facility comfort	Comparison of patient satisfaction levels between two primary healthcare facilities: Natar Main Health Center and Rajabasa Indah Health Center	Patient satisfaction levels with pharmaceutical services at community health centers
Hariyani and Wisnuwardani (2025)	Determinan Kualitas Pelayanan Kesehatan Terhadap Kepuasan Pasien Puskesmas Remaja Tahun 2024	Patients receiving health care at Remaja Health Center	Healthcare service quality based on service quality dimensions such as reliability, responsiveness, assurance, empathy, and tangibles	Comparison of patients' perceptions of good and poor healthcare services across each service quality dimension	Patient satisfaction levels with health services at community health centers
Puspitasar, Hasan and KYusriani (2022)	Hubungan Technical Quality Dengan Kepuasan Pasien Di Puskesmas Kota Ternate	Patients receiving health care at Ternate City Health Center	Technical quality of healthcare services, including healthcare personnel competence, accuracy of medical procedures, diagnostic accuracy, and service protocols	Comparison of patient perceptions regarding good and poor technical quality in healthcare services	Patient satisfaction levels with health services at community health centers
Sharifi et al. (2021)	Quality assessment of services provided by health centers in Mashhad, Iran: SERVQUAL versus HEALTHQUAL scales	Primary health care service users receiving care at four health centers in Mashhad, Iran	Service quality assessment using two healthcare quality instruments: SERVQUAL and HEALTHQUAL	Comparison between patients' perceptions and expectations regarding healthcare service quality, as well as a comparison of	Service quality gap and primary health care service quality levels based on

				measurement results between SERVQUAL and HEALTHQUAL	service quality dimensions
Alqahtani, Alanazi and Alsuwaidan (2023)	Patient Satisfaction with Primary Health Care Services in Riyadh City, Saudi Arabia	Patients receiving care at Primary Health Care Centers in Riyadh City	Primary healthcare service quality encompassing aspects of service access, healthcare provider communication, waiting times, physical facilities, and clinical care	Comparison of patient satisfaction levels based on perceptions of good vs. poor service quality (across PHC service dimensions)	Patient satisfaction levels with primary health care services
Nantabah et al. (2023)	Public satisfaction with the quality of First Health Facility Services in Indonesia: Does sociodemographic matter?	The public/users of primary health care facilities in Indonesia	Quality of primary healthcare facilities, covering dimensions of access, responsiveness, communication, and service experience	Differences in satisfaction based on sociodemographic characteristics (age, gender, education, income, place of residence)	Community satisfaction levels with the quality of services at primary healthcare facilities
Sulistyorini, Jati and Agushybana (2021)	The Effect of Health Care Quality Town Patient Satisfaction in Indonesia	Patients receiving health care at health facilities in Indonesia	Healthcare service quality encompassing SERVQUAL dimensions: tangibles, reliability, responsiveness, assurance, and empathy	Comparison of levels of good vs. poor service quality based on patient perceptions	Patient satisfaction levels with healthcare services
Fabian et al. (2025)	Evaluation of patient satisfaction after primary care system interventions: a follow-up study	Patients receiving care at primary care facilities (urban, rural, and remote clinics)	Interventions in the primary care system, such as improving service workflows, enhancing clinic management, and improving system-based service quality	Comparison of pre- and post-implementation of primary healthcare system interventions	Changes in patient satisfaction levels with primary healthcare services
Gao et al. (2022)	Patient satisfaction and its health provider-related determinants in primary health facilities in rural China	Patients receiving care at primary health care facilities in rural areas of China	Service quality related to healthcare providers (health provider-related factors) such as healthcare worker competence, communication, attitude, and service time	Comparison of patient satisfaction levels based on variations in provider service quality (good vs. poor)	Patient satisfaction levels with primary healthcare services
Dullie et al. (2018)	The institutional primary healthcare service quality and patients' experiences in Chinese community health centres: results from the Greater Bay Area study, China	Patients receiving care at Community Health Centers (CHCs) in the Greater Bay Area, China	Primary healthcare service quality measured through two perspectives: (1) institutional quality using NCQA-PCMH, and (2) patient experience using PCAT	Comparison among CHC facilities with different institutional quality levels (Level 1, 2, 3 PCMH) and variations in patient demographic characteristics	Patient Experience Score (PCAT) and institutional primary healthcare service quality levels
Altin and Stock (2015)	Impact of health literacy, accessibility and coordination of care on patient's satisfaction with primary care in Germany	Patients using primary care services in Germany	Primary healthcare system factors: health literacy, service accessibility, and coordination of care among providers	Comparison of patient satisfaction levels based on differences in health literacy levels and service access/coordination quality	Patient satisfaction levels with primary healthcare services
Kontopantelis, Roland and Reeves (2010)	Patient experience of access to primary care: identification of predictors in a national patient survey	Patients using primary care services in a national survey in the UK	Factors influencing access to primary healthcare such as service availability, appointment systems, wait times, and service experience	Comparison of service access experiences based on patient characteristics and variations in the healthcare system (good vs. poor)	Patient experiences regarding access to primary healthcare services
Raivio et al. (2014)	Decreasing trends in patient satisfaction, accessibility and continuity of care in Finnish primary health	Patients using primary health care services in Finland over a 14-year period	Evaluation of the primary healthcare system over time (not direct interventions,	Comparison across time periods (baseline vs. follow-up over 14 years)	Trends in patient satisfaction, service accessibility, and continuity of care

care – a 14-year follow-up questionnaire study	but changes in the healthcare system)

Source: data proceed

RESULTS AND DISCUSSION

Factors Affecting the Quality of Primary Health Care

The results of the analysis show that factors affecting the quality of primary health care can be grouped into three major themes: interpersonal factors, health care system factors, and technical factors.

First, Interpersonal Factors (Communication, Empathy, Responsiveness). Interpersonal factors are the most dominant determinants across all studies. The dimensions of communication, empathy, healthcare provider attitudes, and responsiveness were found to have a strong association with patient satisfaction. Studies in Indonesia indicate that all SERVQUAL dimensions are significantly associated with patient satisfaction (Sulistyorini, Jati and Agushybana, 2021; Harma and Ishak, 2025; Oktavianti, Indar and Abadi, 2022). Similar findings were also observed in China, where the quality of healthcare providers' communication is a primary predictor of patient satisfaction (Gao et al., 2022). Additionally, another study in China indicates that interpersonal interactions between patients and providers are key factors in shaping the patient experience (Dullie et al., 2018).

Second, Healthcare System Factors (Access, Coordination, Wait Times). Healthcare system factors such as access to services, wait times, service coordination, and *continuity of care* are important determinants of patient satisfaction. Research in the UK shows that wait times and ease of access are major predictors of patient experience (Kontopantelis et al., 2010). Research in Germany also indicates that health literacy, accessibility, and service coordination significantly enhance patient satisfaction (Altin & Stock, 2015). Research in Finland shows that reduced access and *continuity of care* lead to decreased patient satisfaction in the long term (Raivio et al., 2014). Hal ini menunjukkan bahwa kualitas sistem pelayanan harus dijaga secara berkelanjutan. This underscores the need for sustained maintenance of service system quality.

Third, Technical Factors in Healthcare. Technical quality encompasses the clinical competence of healthcare providers, diagnostic accuracy, and medical procedures. Research in Indonesia indicates that technical quality has a significant relationship with patient satisfaction (Puspitasari et al., 2022). This suggests that, in addition to interpersonal aspects, clinical quality remains a crucial factor in building patient trust.

Strategies for Improving Primary Healthcare Quality

Analysis indicates that strategies for improving primary healthcare quality consist of three main approaches: SERVQUAL improvement, *patient-centered care*, and healthcare system reform.

First, Improving SERVQUAL Dimensions. Most studies in Indonesia emphasize improving SERVQUAL quality through training for healthcare workers, improving communication, and enhancing service facilities (Nur et al., 2026; Sukmaningsih et al., 2026; Sulistyorini et al., 2021).

Second, Patient-Centered Care. The patient-centered care approach is a key strategy in improving the quality of primary healthcare services. Research in Iran indicates that the gap between patient expectations and perceptions can be reduced through a more patient-focused approach (Sharifi et al., 2021). Research in China also shows that enhancing the patient experience through the PCAT approach can improve service quality at the institutional level (Dullie et al., 2018).

Third, Healthcare System Reform. Healthcare system interventions have been shown to significantly improve patient satisfaction. Follow-up studies indicate that improvements in

service workflows and clinic management enhance patient satisfaction (Fabian et al., 2025). Additionally, Endalamaw et al. (2023) emphasize that digitalization, strengthening human resources, and service integration are key strategies for improving PHC quality.

Impact of Service Quality on Patient Satisfaction

The synthesis results indicate that all studies consistently found a positive relationship between primary health care service quality and patient satisfaction.

First, The Relationship Between SERVQUAL and Patient Satisfaction. Research in Indonesia indicates that the dimensions of SERVQUAL have a significant relationship with patient satisfaction (Harma & Ishak, 2025; Oktavianti et al., 2022; Sukmaningsih et al., 2026; Sulistyorini et al., 2021).

Second, Impact of Primary Health Care System Interventions. Intervention studies show that improvements to the primary health care system significantly increase patient satisfaction, particularly regarding access and service coordination (Fabian et al., 2025).

Third, Temporal Variations and Cross-National Differences. Longitudinal studies indicate that patient satisfaction may decline over the long term if the healthcare system fails to adapt (Raivio *et al.*, 2014). Additionally, cross-national studies reveal variations in patient experiences based on healthcare systems (Altin and Stock, 2015; Kontopantelis, Roland and Reeves, 2010).

Quality of Primary Healthcare as a Determinant of Patient Satisfaction

The quality of primary healthcare is consistently associated with patient satisfaction. This finding aligns with the core concept of patient-centered care, which emphasizes that service quality is determined not only by clinical outcomes but also by the patient's experience during care. This is reinforced by Donabedian, who states that healthcare quality comprises three main components: structure, process, and *outcome*, where the patient's experience is a crucial part of the service outcome (Donabedian, 1988). Patients' perceptions of service quality are the primary predictors of patient satisfaction and loyalty toward primary healthcare facilities (Doyle et al., 2013; Salisbury et al., 2010).

The Dominance of SERVQUAL Dimensions in Service Quality Evaluation

The SERVQUAL model remains the dominant approach for measuring primary healthcare service quality, particularly across the dimensions of *reliability, responsiveness*, assurance, empathy, and tangibles. This is consistent with the findings of Batbaatar et al. (2017), who conducted a systematic review and found that SERVQUAL is the most frequently used instrument in healthcare quality evaluation because it can capture both interpersonal and structural dimensions simultaneously. Additionally, the research by Berry et al. (1988), which forms the theoretical basis of SERVQUAL, indicates that the gap between patient expectations and perceptions is a key indicator of service quality.

However, recent literature indicates that SERVQUAL has limitations in measuring aspects of *continuity of care* and service coordination, leading to the development of approaches such as PCAT (*Primary Care Assessment Tool*) and patient experience measures (Khatri et al., 2023).

The Role of Interpersonal Factors in Patient Satisfaction

One of the most consistent findings in this scoping review is the dominance of interpersonal factors such as communication, empathy, and healthcare providers' attitudes. This aligns with the research by Miller and Peck (2019), which shows that effective doctor-patient communication significantly improves patient satisfaction and even impacts clinical outcomes. Furthermore, Zolnierek and DiMatteo (2009) concluded in their meta-analysis that good communication between healthcare providers and patients increases treatment adherence by up to 19% and directly improves patient satisfaction. Thus, the quality of care is not merely technical but is also heavily influenced by interpersonal aspects in clinical interactions.

Access, Coordination, and Continuity of Care as a Service System

Access to services, wait times, and service coordination are systemic factors that significantly influence patient satisfaction. This finding is supported by Kringos *et al.* (2013), who state that a strong *primary care* system is characterized by easy access, *continuity of care*, and good service coordination. Additionally, Starfield (1998) research indicates that healthcare systems with strong primary care exhibit higher patient satisfaction levels and better cost efficiency.

However, a longitudinal study by Salisbury, Wallace and Montgomery (2010) suggests that increased strain on the healthcare system can reduce access and *continuity of care* despite system reforms, a finding consistent with the Finnish results in this review.

Technical Quality as a Clinical Dimension of Care

In addition to interpersonal and system aspects, *technical quality* is also a key determinant of patient satisfaction. This encompasses clinical competence, diagnostic accuracy, and the quality of medical procedures. Research by Campbell, M.O. Roland and Buetow (2011) indicates that clinical quality is a primary component of *patient safety* and directly influences patients' trust in healthcare facilities.

However, interestingly, some studies suggest that patients are more sensitive to interpersonal aspects than technical aspects when assessing satisfaction (Doyle et al., 2013), indicating a gap between clinical quality and perceived quality.

Strategies for Improving Primary Health Care Quality

Quality improvement strategies focus on *patient-centered care*, health care system reform, service digitization, and enhancing the competencies of health care workers

This aligns with the report of WHO & UNICEF (2020), which emphasizes that the transformation of primary health care must be oriented toward people-centered integrated services. Additionally, Institute of Medicine (US) (2001) in its report *Crossing the Quality Chasm* emphasizes the importance of redesigning the healthcare system to improve safety, effectiveness, and the patient experience.

The Impact of Service Quality on Patient Satisfaction

A positive relationship exists between service quality and patient satisfaction. This finding is consistent with the meta-analysis by Batbaatar et al. (2017), which shows that service quality has a strong relationship with *patient satisfaction* across various health systems. However, longitudinal studies indicate that patient satisfaction may decline even as health systems improve, if not accompanied by increased access and *continuity of care* (Salisbury et al., 2010). This suggests that service quality is dynamic and context-dependent.

Efforts to improve the quality of primary healthcare must focus not only on clinical technical aspects but also on interpersonal dimensions and the overall healthcare system. Findings regarding the importance of communication, empathy, access to services, continuity of care, and service coordination imply that primary healthcare facilities must implement a patient-centered care approach more effectively. Additionally, the use of service quality evaluation instruments such as SERVQUAL, PCAT, or patient *experience measures* can serve as a foundation for developing more comprehensive policies to improve service quality. This study also highlights the importance of strengthening healthcare workers' competencies, digitalizing services, and reforming the healthcare system to enhance patient satisfaction and the sustainability of primary healthcare services.

Limitations of this study include the fact that the scoping review only mapped and synthesized the literature without conducting an in-depth assessment of methodological quality, as is done in systematic reviews; variations in study design, service quality measurement instruments, and health systems across studies led to heterogeneity in results, which may affect the generalizability of the findings; Most of the reviewed studies used a *cross-sectional*

approach, so a strong causal relationship between service quality and patient satisfaction cannot yet be established; limited access to some *full-text* articles and language restrictions in publications also have the potential to introduce bias in the literature synthesis process:

CONCLUSION

The quality of primary health care has a significant and consistent relationship with patient satisfaction. The most dominant dimensions of service quality include reliability, responsiveness, assurance, empathy, and tangibles, as measured using the SERVQUAL approach. Beyond technical aspects of care, interpersonal factors such as communication, empathy, and the attitudes of healthcare providers are key determinants that significantly influence patients' perceptions and experiences of healthcare services. Additionally, access to services, service coordination, and continuity of care also play a crucial role in shaping patient satisfaction within the primary healthcare system. These findings indicate that improving the quality of primary healthcare requires a comprehensive approach through patient-centered care, strengthening the competencies of healthcare workers, reforming the healthcare system, and optimizing the digitalization of services. Thus, high-quality primary healthcare not only enhances patient satisfaction but also supports the effectiveness, efficiency, and sustainability of the healthcare system.

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