



SERVICE QUALITY, PATIENT SATISFACTION, AND LOYALTY IN PRIMARY CARE: POLICY IMPLICATIONS FROM A NARRATIVE REVIEW

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Abstrak

Kualitas layanan merupakan penentu utama kepuasan dan loyalitas pasien. Meskipun terdapat banyak bukti di lingkungan rumah sakit, temuan di layanan kesehatan primer masih terfragmentasi, terutama dalam konteks yang sedang mengalami reformasi pembiayaan kesehatan. Tinjauan ini bertujuan untuk mensintesis bukti empiris tentang hubungan antara dimensi SERVQUAL, kepuasan pasien, dan loyalitas pasien di lingkungan layanan kesehatan primer. Tinjauan naratif dilakukan pada 34 studi empiris primer yang diterbitkan antara tahun 2020 dan 2025. Studi yang meneliti dimensi SERVQUAL—wujud fisik, keandalan, daya tanggap, jaminan, dan empati—dalam kaitannya dengan kepuasan dan loyalitas disertakan. Data diekstrak dan disintesis secara naratif, didukung oleh pemetaan frekuensi bukti. Daya tanggap, empati, dan wujud fisik secara konsisten menunjukkan hubungan yang kuat dengan kepuasan pasien. Kepuasan sering memediasi hubungan antara kualitas layanan dan loyalitas, sedangkan efek langsung kualitas layanan terhadap loyalitas tidak konsisten. Keandalan dan jaminan menunjukkan efek yang bervariasi di berbagai konteks. Sebagian besar studi menggunakan desain cross-sectional dan pendekatan analitik SEM-PLS. Bukti mendukung jalur kualitas layanan–kepuasan–loyalitas dalam perawatan primer. Faktor kontekstual dan finansial, seperti model pembiayaan institusional, dapat memoderasi hubungan ini dan memerlukan penyelidikan lebih lanjut menggunakan desain longitudinal dan sensitif konteks.

Kata kunci: kepuasan pasien; loyalitas pasien; perawatan primer; kualitas layanan; SERVQUAL.

Abstract

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Keywords: Marketing Mix, Patient Satisfaction, Hospitals

INTRODUCTION

Introduction

Primary health care constitutes the backbone of the Indonesian health system and plays a central role in achieving universal health coverage (UHC). National health policies position *pelayanan kesehatan primer* as the first point of contact, the gatekeeper of the referral system, and the main provider of promotive and preventive services under the National Health Insurance (*Jaminan Kesehatan Nasional*, JKN). Ensuring high-quality primary care services is therefore essential for sustaining patient trust, continuity of care, and efficient use of health system resources.

The Ministry of Health has emphasized the strengthening of primary health care through the *Transformasi Sistem Kesehatan*, particularly the pillar of *Transformasi Layanan Primer*. This policy direction highlights patient-centered care, service responsiveness, and adequate facility readiness as key components of primary care performance. Within this context, patient satisfaction and loyalty are increasingly recognized as indicators reflecting how health services are experienced and valued by the population.

Under the JKN system, primary care facilities—especially Puskesmas—play a critical role in ensuring effective gatekeeping and continuity of care. High utilization of

primary care services places increasing demands on service quality, particularly in terms of interpersonal communication, timeliness, and perceived service value. When patient expectations are not met, dissatisfaction may lead to weakened trust and inappropriate bypassing of primary care services, thereby undermining health system efficiency.

Service quality has commonly been conceptualized using the SERVQUAL framework, which comprises five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Numerous empirical studies have examined the relationships between these dimensions and patient satisfaction or loyalty. However, much of the existing literature focuses on hospital settings, while findings from primary care contexts remain dispersed and heterogeneous. Moreover, limited synthesis has been conducted to identify which service quality dimensions most consistently influence patient satisfaction and loyalty in primary care.

This narrative review aims to synthesize empirical evidence on the relationships between service quality dimensions, patient satisfaction, and patient loyalty in primary care settings. By consolidating findings across studies, this review seeks to identify consistent patterns and methodological gaps relevant to strengthening primary care services

and informing health policy implementation.

Methods

A narrative review design was employed to capture the breadth of empirical evidence and contextual heterogeneity. A total of 37 articles published between 2020 and 2025 were initially identified through structured searches and reference screening. After excluding three review articles used solely for background, 34 primary empirical studies were included.

Inclusion criteria comprised studies conducted in primary care settings that empirically tested at least one SERVQUAL dimension in relation to patient satisfaction or loyalty. Data extraction focused on study design, analytical methods, and statistically significant associations. Due to heterogeneity in measurement instruments and outcomes, meta-analysis was not conducted. Instead, findings were synthesized narratively and summarized using an evidence frequency mapping.

Table 1. Characteristics of included studies

No.	Title/Year	Country	Setting	Study Design	Sample Size	Analytical Method
1	Patient Satisfaction and Loyalty in Japanese Primary Care (2021)	Japan	Primary Care	Quantitative, Cross-Sectional	653 patients	SEM
2	Strategies to Improve Patient Loyalty and Medication Adherence in Syrian Healthcare Setting (2022)	Suriah	Primary Care Outpatient	Quantitative	264 patients	PLS-SEM
3	Impacts of Service Quality, Brand Image, and Perceived Value on Outpatient's Loyalty to China's Private Dental Clinics with Service Satisfaction as a Mediator(2022)	China	Dental Cliniq	Cross-Sectional	125 patients	SEM
4	Factors of the Revisit Intention of Patients in the Primary Health Care System in Argentina (2024)	Argentina	Public Health Centre	Quantitative, Cross-Sectional	400 patients	PLS-SEM
5	Impact of Service Quality on In-Patients' Satisfaction, Perceived Value, and Customer Loyalty: A Mixed-Methods Study from a Developing Country (2021)	Vietnam	Private Hospital	Mixed-Method	368 patients	SEM
6	Exploring the Relationship Between Hospital Service Quality, Patient Trust, and Loyalty From a Service Encounter Perspective in Elderly With Chronic Diseases (2022)	China	Tertiary Hospital	Quantitative	483 patients	SEM

No.	Title/Year	Country	Setting	Study Design	Sample Size	Analytical Method
7	A cross-sectional study on the relationship between length of stay and patient satisfaction based on the SERVQUAL model (2025)	China	Hospital	Quantitative, Cross-Sectional	2.567 pts	Multilevel Logistic Regression
8	Measuring the Impact of Dental Service Quality on Revisit Intention Using Extended SERVQUAL (2024)	Saudi Arabia	Dental Clinic	Quantitative, Cross-Sectional	330 patients	Hierarchical Regression
9	Exploring the Gap Between Patients' Expectations and Perceptions of Healthcare Service Quality (2022)	Jordania	Public Hospital	Quantitative, Cross-Sectional	415 patients	T-Test, Anova
10	Service Quality and Patient Satisfaction of Internet Hospitals in China: Cross-Sectional Evaluation With the Service Quality Questionnaire (2023)	China	Internet Hospital Users	Quantitative, Cross-Sectional	1.481 patients	IPA-Multiple Regression
11	Valuing Outpatients' Perspective on Primary Health Care Services in Greece: A Cross-Sectional Survey on Satisfaction and Personal-Centered Care (2024)	Greek	Private Clinic,	Cross-Sectional Survey	842 patients	Multiple Linier Regression
12	The Effect of Perceived Value, Trust and Commitment on Patient Loyalty (2021)	Taiwan	All Health Facilities	Cross-Sectional Survey	376 patients	Mediation & moderated mediation

No.	Title/Year	Country	Setting	Study Design	Sample Size	Analytical Method
13	Assessment of Healthcare Service Quality Effect on Patient Satisfaction and Care Outcomes: A case study in India (2023)	India	Private Hospital	Cross-Sectional Survey	1.169 patients	SEM
14	A comparative study of Palestinian patient satisfaction with service quality in accredited government and private hospitals in the West bank (2025)	Palestine	Hospital	Quantitative Comparative	150 patients	T-Test, Descriptive Statistic
15	A proposed model of user satisfaction with medical emergency services by using the SERVQUAL model (2021)	Colombia	Emergency Service	Exploratory qualitative	310 patients	SEM
16	Service Quality, Satisfaction and Loyalty in Public Primary Healthcare: A Structural Equation Modeling (2021)	Greek	Public Health Service	Quantitative Cross-Sectional	496 patients	Gap Analysis
18	Service Quality and Related Factors in Primary Health Care Services: A Cross-Sectional Study (2024)	Turki	Public Health Centre	Quantitative Cross-Sectional	460 patients	Descriptive Analytic and Regression
19	Patient Satisfaction and Hospital Quality of Care Evaluation in Malaysia Using SERVQUAL and Facebook (2021)	Malaysia	Hospital (Social Media Comments)	Mixed-Method	35.000 comments	Logistic Regression Text Mining
20	The Impact of Patient Satisfaction on Patient Loyalty with the Mediating	China	Public Hospital	Quantitative, Explanatroi, Cross-sectional	1.696 patients	SEM, CFA

No.	Title/Year	Country	Setting	Study Design	Sample Size	Analytical Method
	Effect of Patient Trust (2021)					
21	Exploration of Patient Loyalty Through Value Integration and Customer Satisfaction (2024)	Indonesia	State University Hospital	Descriptive	367 patients	PLS-SEM
22	The Effect of Service Quality and Patient Satisfaction Toward Patient Loyalty (2023)	Indonesia	Public Hospital	Quantitative Cross-Sectional	269 patients	PLS-SEM
24	Relationship Between Patient Satisfaction and Dimensions of Health Service Quality with Revisit Interest of Outpatient in Lumajang Health Center (2024)	Indonesia	Public Health Centre	Quantitative Cross-Sectional	386 patients	Chi-Square
25	The Mediating Role of Hospital Image: The Impact of Care Cost and Service Quality on Patient Satisfaction (2022)	Syria	Public Health Centre	Quantitative, Explanatory Survey	270 patients	SEM
26	Service Quality, Satisfaction and Patient Loyalty in Public Health Center of Bengkulu (2022)	Indonesia	Public Health Centres	Mixed-Method, Cross-sectional, Explorative	350 patients	Path Analysis
27	Study on Service Quality on Customer Satisfaction and Loyalty (2022)	Indonesia	Hospital	Causal, Quantitative	14.501 patients	SEM
28	Service Quality and Customer Satisfaction on WOM a Private Hospital in Indonesia (2021)	Indonesia	Hospital	Quantitative Cross-Sectional	303 patients	SEM
29	The Influence of Hospital Brand Image, Health	Indonesia	Hospital	Quantitative Cross-Sectional	160 patients	PLS-SEM

No.	Title/Year	Country	Setting	Study Design	Sample Size	Analytical Method
	Service Quality and Patient Satisfaction on Loyalty at Arosuka Regional Hospital (2024)					
30	The Effect of Health Service Quality on Outpatient Satisfaction at the Buluspesantren Health Center (2021)	Indonesia	Public Health Centre	Quantitative, Descriptive-Observasional	30 patient	Univariat & Bivariat Test
31	Pengaruh Kinerja dan Kualitas Pelayanan Terhadap Loyalitas Pasien (2024)	Indonesia	Public Health Centre	Quantitative, Cross-Sectional	250 patients	Multiple Regression
32	The Influence of Brand Image, Perceived Service Quality, Perceived Value, and Customer Satisfaction on Customer Loyalty (2025)	Indonesia	Private Clinic	Quantitative	147 patients	PLS-SEM
33	Effect of Perceived Healthcare Service Quality on Patient Loyalty Mediated by Patient Satisfaction at XY Hospital (Servqual Dimensional Approach) (2021)	Indonesia	Public Hospital	Quantitative, Cross-Sectional	N/A	Path Analysis/SEM
34	The Impact of Service Quality on Patient Satisfaction at Community Health Centers (2021)	Indonesia	Public Health Centre	Quantitative, Cross-Sectional	100 patients	Multiple Regression
35	The Impact of Marketing Mix on Patient Loyalty and Satisfaction in Inpatient Services (2025)	Indonesia	Hospital	Quantitative, Cross-Sectional	91 patients	PLS-SEM

No.	Title/Year	Country	Setting	Study Design	Sample Size	Analytical Method
37	Comparative Analysis of Service Quality between Public and Private Hospitals Using SERVQUAL Model (2022)	Indonesia	Hospital	Quantitative, Cross-Sectional	150 patients	Descriptive Analysis

RESULT

Overview of Included Evidence

A total of 34 primary empirical studies conducted in various health care facility settings were included in this review. Most studies employed cross-sectional survey designs and analyzed data using structural equation modeling, predominantly partial least squares (SEM-PLS). Study contexts varied across countries and health system arrangements, contributing to heterogeneity in measurement instruments and analytical approaches (Table 1).

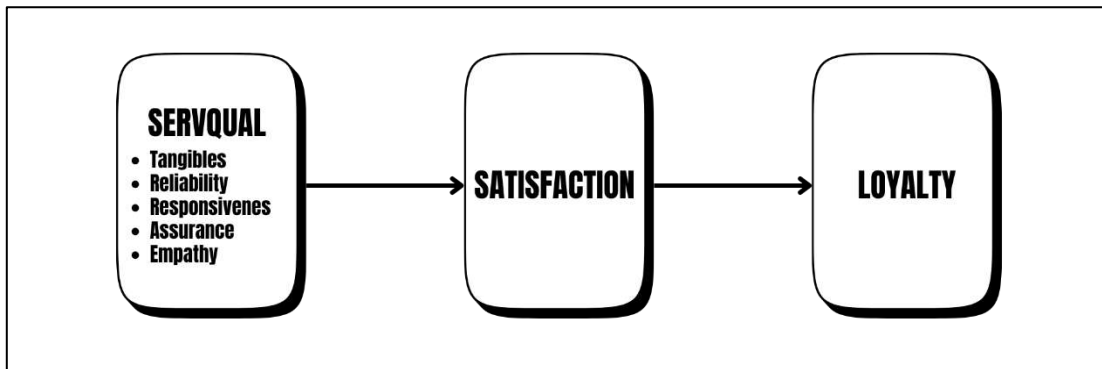
SERVQUAL Dimensions and Patient Satisfaction

Across the included studies, three SERVQUAL dimensions—responsiveness, empathy, and tangibles—emerged as the

most consistent predictors of patient satisfaction. Responsiveness was most frequently associated with satisfaction, reflecting the importance of timely service, prompt attention, and staff willingness to help patients. Empathy followed closely, highlighting the role of interpersonal care, respect, and individualized attention in shaping patient evaluations.

Tangibles, including physical facilities, cleanliness, and equipment, also showed a strong and recurrent association with satisfaction. These visible aspects of care appear to function as quality signals, particularly in primary care settings where patients may have limited ability to assess technical competence directly.

Figure 1. Conceptual framework linking SERVQUAL dimensions, patient satisfaction, and loyalty



SERVQUAL Dimensions and Patient Loyalty

Compared with satisfaction, direct associations between SERVQUAL dimensions and patient loyalty were less consistent. While some studies reported significant direct effects—particularly for responsiveness and tangibles—many found that these effects diminished or became non-significant once satisfaction was included in the model.

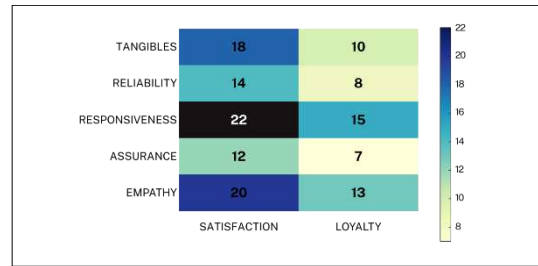
Reliability and assurance demonstrated variable and context-dependent relationships with both satisfaction and loyalty. In several studies, these dimensions appeared to function as baseline expectations rather than differentiating factors, contributing to patient trust but exerting limited influence on loyalty intentions when minimum standards were met.

Mediating Role of Patient Satisfaction

Patient satisfaction frequently emerged as a mediating variable linking service quality to loyalty outcomes. In most studies that tested mediation explicitly, satisfaction significantly transmitted the effects of responsiveness, empathy, and tangibles to loyalty measures such as intention to return and willingness to recommend services.

This pattern suggests that improvements in service quality are most likely to translate into loyalty when they meaningfully enhance patients’ overall evaluative judgments of care.

Figure 2. Evidence heatmap showing frequency of significant associations between SERVQUAL dimensions and patient outcomes across included studies



Summary of Evidence Patterns

To facilitate comparison across studies, significant associations between SERVQUAL dimensions and patient outcomes were summarized in an evidence frequency table (Table 2). The table illustrates the predominance of responsiveness, empathy, and tangibles as drivers of satisfaction, as well as the central role of satisfaction in loyalty formation.

Table 2. Summary of significant associations between SERVQUAL dimensions and satisfaction and loyalty outcomes

SERVQUAL Dimensions	Association with Patient Satisfaction	Association with Patient Loyalty	Typical Pattern Across Studies
Tangibles	Frequently significant	Occasionally significant	Strong predictor of satisfaction; indirect effect on loyalty via satisfaction
Reliability	Mixed findings	Rarely significant	Often baseline expectation; context-

			depende nt
Responsiv eness	Consist ently signific ant	Indirectl y significa nt	Most robust predicto r through satisfacti on mediatio n
Assurance	Mixed to weak	Rarely significa nt	Importa nt when trust or safety concern are silent
Empathy	Frequen tly signific ant	Indirectl y significa nt	Strong interspers onal driver of satisfacti on and loyalty

DISCUSSION

This narrative review demonstrates that service quality in primary care is associated with patient loyalty primarily through patient satisfaction. Responsiveness, empathy, and tangibles consistently emerged as salient dimensions shaping patient satisfaction, whereas direct effects on loyalty were less robust. These findings suggest that loyalty reflects cumulative evaluations of service experiences rather than immediate reactions to individual service attributes.

Interpersonal dimensions such as responsiveness and empathy play a critical role in primary care, where repeated interactions between patients and providers are common. Timely services, effective communication, and respectful attitudes

contribute to patients' perceptions of being valued and supported. These aspects align with the emphasis on patient-centered care and continuity within Indonesia's primary care policy framework.

The association between tangibles and satisfaction highlights the importance of physical environments in shaping patient perceptions. In public primary care settings, tangible elements may serve as proxies for organizational competence, particularly when patients have limited ability to assess technical quality. Maintaining adequate facility standards may therefore support positive patient experiences.

The variable findings related to reliability and assurance suggest that these dimensions may function as baseline expectations. When consistently met, their influence on satisfaction may be less apparent; however, deficiencies in these areas may quickly erode patient trust. This variability underscores the need for contextual interpretation of service quality assessments in primary care.

Patient satisfaction emerged as a key mediating mechanism linking service quality to loyalty. This finding has important implications for health systems that rely on continuity and effective gatekeeping. Efforts to strengthen primary care utilization should therefore prioritize improvements in patient experience alongside structural and organizational reforms.

Methodological limitations across studies, particularly the predominance of cross-sectional designs and heterogeneous measurement tools, limit causal interpretation. Future research should employ longitudinal designs and standardized, context-sensitive instruments

to better inform policy-relevant evaluations of primary care service quality.

CONCLUSION

This narrative review demonstrates that service quality influences patient loyalty in primary care primarily through patient satisfaction, with responsiveness, empathy, and tangibles emerging as key drivers. For policymakers and managers, these findings underscore the need to align quality improvement initiatives and financing reforms with patient-centered values. Future research should explicitly incorporate policy and financing variables to generate evidence that is both context-sensitive and actionable.

Responsiveness, empathy, and tangibles are consistent predictors of patient satisfaction in primary care. Satisfaction plays a mediating role in fostering patient loyalty. Contextual and financial factors may shape these relationships and should be integrated into future empirical investigations.

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All authors contributed to the conceptualization of the study. The first author conducted the literature search and drafted the manuscript. All authors contributed to data interpretation, critically revised the manuscript for intellectual content, and approved the final version.

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