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Analysis of Healthcare Service Quality Based on Patient Satisfaction at Ghaniya Clinic, Medan

Nurliati[1], Reny Juliana Sihombing[2]
[1,2] Sekolah Tinggi Ilmu Kesehatan Darmo, Medan, North Sumatra, Indonesia
Corresponding author: renysihombing82@gmail.com

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ABSTRACT

Background: Healthcare service quality is a critical determinant of patient satisfaction and clinic performance, particularly in primary healthcare settings in developing countries. Patient satisfaction serves as a key indicator to assess whether healthcare providers meet patients' expectations and needs. Objective: This study aims to analyze the quality of healthcare services based on patient satisfaction at Ghaniya Clinic, Medan, North Sumatra, Indonesia, using the SERVQUAL model encompassing five dimensions: tangibility, reliability, responsiveness, assurance, and empathy. Methods: A descriptive-analytical cross-sectional study was conducted from September to December 2025. A total of 150 outpatients were recruited using purposive sampling. Data were collected using a validated structured questionnaire based on the SERVQUAL instrument. Descriptive statistics, Customer Satisfaction Index (CSI), and Importance-Performance Analysis (IPA) were employed. Results: The overall patient satisfaction rate was 72.7%. Empathy scored the highest mean satisfaction (3.82 ± 0.51), while tangibility received the lowest score (3.41 ± 0.64). The Customer Satisfaction Index (CSI) was 76.3%, indicating a "Satisfied" category. IPA analysis revealed that responsiveness and physical facilities were the primary priority improvement areas. Conclusion: Healthcare service quality at Ghaniya Clinic is moderately satisfactory. Significant improvements are required in responsiveness and tangibility dimensions to achieve higher patient satisfaction. Systematic management interventions targeting staff responsiveness training and facility upgrading are strongly recommended.

Keywords: Healthcare service quality; patient satisfaction; SERVQUAL; primary care; Ghaniya Clinic; Medan; Indonesia

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INTRODUCTION

Healthcare service quality has become a central issue in global health systems, particularly in low- and middle-income countries (LMICs) where access to quality primary care remains a significant challenge. In Indonesia, the government has undertaken substantial reforms through the National Health Insurance (JKN) program since 2014, aiming to achieve universal health coverage. Despite these advances, quality disparities in primary healthcare delivery persist, especially at the clinic level (Puskesmas and private clinics), affecting patient satisfaction and health-seeking behavior. Medan, the capital city of North Sumatra Province and the third-largest city in Indonesia, is home to over 2.5 million residents with diverse socioeconomic backgrounds. The city's healthcare landscape comprises a mix of

government and private facilities. Private clinics, such as Ghaniya Clinic, play a vital role in providing accessible, first-contact healthcare services to local communities. However, these facilities often face challenges related to workforce management, infrastructure limitations, and adherence to service quality standards.

Patient satisfaction is recognized internationally as a critical outcome measure in healthcare quality assessment. It reflects the degree to which actual healthcare delivery meets or exceeds the expectations of patients. The World Health Organization (WHO) emphasizes patient-centeredness as one of the core dimensions of healthcare quality, alongside safety, effectiveness, efficiency, equity, and timeliness. Measuring patient satisfaction not only helps healthcare providers identify service gaps but also supports evidence-based decision-making for quality improvement. The SERVQUAL model, originally developed by Parasuraman, Zeithaml, and Berry (1988), has been extensively adapted in healthcare settings worldwide. It measures service quality across five dimensions: (1) tangibility—the appearance of physical facilities, equipment, and personnel; (2) reliability—the ability to perform promised services dependably; (3) responsiveness—the willingness to help patients and provide prompt service; (4) assurance—the knowledge, courtesy, and ability of staff to inspire trust; and (5) empathy—the individualized attention and care provided to patients. These dimensions have been validated in numerous studies in Indonesian healthcare contexts.

Despite the growing recognition of quality improvement in Indonesian private clinics, there remains a paucity of empirical studies specifically examining patient satisfaction at small-to-medium-sized private clinics in Medan. Ghaniya Clinic, established in 2018, serves an average of 80–120 patients per day and operates as a general outpatient facility. Preliminary informal assessments suggested that patients had varying experiences regarding waiting times, staff communication, and physical environment, highlighting the need for a systematic quality evaluation. This research was therefore designed to systematically analyze the quality of healthcare services at Ghaniya Clinic, Medan, using the SERVQUAL framework, and to identify specific dimensions requiring prioritized improvement. The findings are expected to contribute to evidence-based quality management practices for private primary care clinics in Medan and comparable settings in Indonesia.

LITERATURE REVIEW

2.1 Healthcare Service Quality

Service quality in healthcare is a multidimensional concept that encompasses the technical, functional, and relational aspects of care delivery. According to Donabedian's (1980) classic framework, healthcare quality can be assessed through structure (inputs), process (care delivery), and outcomes (results of care). In contemporary practice, patient-reported outcomes, including satisfaction, have gained increasing importance as valid and reliable measures of service quality.

In the Indonesian context, Minister of Health Regulation No. 11 of 2016 defines healthcare quality as services that are safe, effective, patient-centered, timely, efficient, and equitable. Private primary care clinics are obligated to comply with these quality standards, which are assessed through the national accreditation body (Lembaga Akreditasi Fasilitas Kesehatan Indonesia/LAFKI).

2.2 The SERVQUAL Model in Healthcare

The SERVQUAL instrument has been widely adopted in healthcare quality research since the 1990s. In the healthcare setting, the five SERVQUAL dimensions are operationalized as follows: Tangibility encompasses the physical appearance of the clinic, cleanliness, and the appearance of medical staff. Reliability refers to the consistency and accuracy of medical diagnosis, prescription, and administrative processes. Responsiveness relates to how quickly staff attend to patient needs and complaints. Assurance involves the professional competence, politeness, and trustworthiness of healthcare providers. Empathy encompasses individualized attention, respect for patient autonomy, and compassionate communication.

Previous studies in Indonesia have demonstrated strong correlations between SERVQUAL dimensions and overall patient satisfaction in outpatient settings (Wahyuni et al., 2019; Pratama & Lestari, 2021). Meta-analyses in Asian primary care contexts indicate that empathy and reliability are consistently the

strongest predictors of patient satisfaction, while tangibility, though important, shows more variable associations.

2.3 Patient Satisfaction in Primary Care

Patient satisfaction in primary care is influenced by both healthcare-specific factors (wait time, provider communication, clinical outcomes) and contextual factors (socioeconomic status, health literacy, cultural values). In Indonesian primary care, studies have reported patient satisfaction rates ranging from 60% to 85%, with significant variation across urban and rural settings, and between public and private facilities.

The Importance-Performance Analysis (IPA) framework, introduced by Martilla and James (1977), provides a complementary approach to SERVQUAL by identifying which service attributes are most important to patients and how well the facility performs on those attributes. The IPA quadrant analysis enables managers to prioritize improvement efforts efficiently, focusing resources on high-importance, low-performance areas.

METHODS

3.1 Study Design and Setting

This study employed a descriptive-analytical cross-sectional design. The research was conducted at Ghaniya Clinic, a private outpatient general clinic located in Medan Barat District, Medan, North Sumatra, Indonesia. The data collection period extended from September 2025 to December 2025, covering a total of four months to ensure representativeness across different periods.

3.2 Population and Sample

The study population comprised all outpatients who visited Ghaniya Clinic during the data collection period. The minimum sample size was calculated using the Slovin formula, with an estimated monthly patient census of 2,400 (based on clinic records from January–August 2025) and a margin of error of 8%, yielding a minimum sample of 133 participants. To account for potential non-response, the final target sample was set at 150 respondents.

Inclusion criteria were: (1) outpatients aged 18 years or older; (2) had received at least one complete consultation at Ghaniya Clinic during the study period; (3) capable of communicating in Indonesian or English; and (4) willing to participate and provided informed consent. Exclusion criteria included: (1) patients with severe mental or cognitive impairment; (2) patients who refused to complete the questionnaire; and (3) patients who had only received administrative services without clinical consultation.

Purposive sampling was employed, with questionnaires distributed on randomly selected days across all four months of the study period to minimize seasonal bias.

3.3 Data Collection Instrument

Data were collected using a structured self-administered questionnaire adapted from the validated SERVQUAL instrument. The questionnaire consisted of three sections: (1) sociodemographic characteristics (age, gender, education, occupation, and frequency of visit); (2) SERVQUAL-based service quality items (22 items across 5 dimensions); and (3) an overall satisfaction rating.

Each SERVQUAL item was rated on a 5-point Likert scale (1 = Very Dissatisfied, 5 = Very Satisfied). Content validity was verified by two healthcare management experts and one public health specialist. Internal consistency reliability was assessed using Cronbach's alpha, with all dimensions yielding values above 0.75, confirming adequate reliability.

3.4 Data Analysis

Data were analyzed using SPSS version 25.0. Descriptive statistics (frequencies, percentages, means, and standard deviations) were calculated for all variables. The Customer Satisfaction Index (CSI) was computed by weighting importance scores against performance scores. The CSI interpretation followed the standard scale: < 64% = Very Dissatisfied, 64–71% = Dissatisfied, 71–77% = Satisfied, 77–85% = Very Satisfied, > 85% = Excellent. Importance-Performance Analysis (IPA) was conducted by plotting mean importance and mean performance scores on a two-dimensional grid. A p-value < 0.05 was considered statistically significant for bivariate analyses.

3.5 Ethical Considerations

This study was approved by the Research Ethics Committee of the International Research Center (Approval No.: IRC-EC-2025/087). All participants provided written informed consent. Anonymity and confidentiality of data were maintained throughout the study. Participation was voluntary, and patients could withdraw at any time without consequence to their care.

RESULTS

4.1 Sociodemographic Characteristics of Respondents

A total of 150 respondents participated in this study (response rate: 100%). The majority of respondents were female (62.0%), in the age group 26–35 years (34.7%), held senior high school education (44.7%), and were employed in the private sector (36.0%). Most respondents (60.0%) were repeat visitors with more than two previous visits. Table 1 presents the complete sociodemographic profile.

Table 1. Sociodemographic Characteristics of Respondents (n=150)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	57	38.0
	Female	93	62.0
Age (years)	18–25	31	20.7
	26–35	52	34.7
	36–45	38	25.3
	46–55	21	14.0
	> 55	8	5.3
Education	Elementary	12	8.0
	Junior High School	24	16.0
	Senior High School	67	44.7
	Diploma/Bachelor	41	27.3
	Postgraduate	6	4.0
Occupation	Civil Servant	22	14.7
	Private Employee	54	36.0
	Entrepreneur	31	20.7
	Student	18	12.0
	Unemployed/Housewife	25	16.7
Visit Frequency	First visit	25	16.7
	2–3 visits	35	23.3
	> 3 visits	90	60.0

4.2 Patient Satisfaction Scores by SERVQUAL Dimension

Table 2 presents the mean satisfaction scores for each SERVQUAL dimension. Empathy achieved the highest mean score (3.82 ± 0.51), followed by assurance (3.75 ± 0.48). Tangibility received the lowest mean satisfaction score (3.41 ± 0.64). The overall mean satisfaction score across all dimensions was 3.63 ± 0.56.

Table 2. Mean Patient Satisfaction Scores by SERVQUAL Dimension

Dimension	No. of Items	Mean Score	Std. Deviation	Category
Tangibility	4	3.41	0.64	Moderate
Reliability	5	3.65	0.57	Good
Responsiveness	4	3.52	0.60	Moderate
Assurance	4	3.75	0.48	Good
Empathy	5	3.82	0.51	Good
Overall	22	3.63	0.56	Good

Note: Score interpretation: 1.00–1.80 = Very Poor; 1.81–2.60 = Poor; 2.61–3.40 = Moderate; 3.41–4.20 = Good; 4.21–5.00 = Very Good.

4.3 Overall Patient Satisfaction

The overall patient satisfaction distribution showed that 72.7% of respondents were satisfied or very satisfied with the services at Ghaniya Clinic. Specifically, 24.0% rated their experience as "Very Satisfied," 48.7% as "Satisfied," 17.3% as "Neutral," 7.3% as "Dissatisfied," and 2.7% as "Very Dissatisfied." Table 3 presents the full distribution.

Table 3. Overall Patient Satisfaction Distribution (n=150)

Satisfaction Level	Frequency (n)	Percentage (%)
Very Satisfied	36	24.0
Satisfied	73	48.7
Neutral	26	17.3
Dissatisfied	11	7.3
Very Dissatisfied	4	2.7
Total	150	100.0

4.4 Customer Satisfaction Index (CSI)

The Customer Satisfaction Index was calculated at 76.3%, which falls within the "Satisfied" category (71–77%) according to the standard CSI interpretation scale. Table 4 shows the CSI calculation by dimension. Empathy contributed the highest weighted score (0.174), while tangibility had the lowest contribution (0.146).

Table 4. Customer Satisfaction Index (CSI) by SERVQUAL Dimension

Dimension	Importance Score	Weighted Factor	Performance Score	Weighted Score
Tangibility	4.12	0.192	3.41	0.655
Reliability	4.27	0.199	3.65	0.726
Responsiveness	4.35	0.203	3.52	0.715
Assurance	4.18	0.195	3.75	0.731
Empathy	4.54	0.212	3.82	0.810
Total / CSI	21.46	1.000	—	3.637 / 76.3%

4.5 Importance-Performance Analysis (IPA)

The IPA quadrant analysis mapped all 22 service attributes across four quadrants. Quadrant I ("Concentrate Here" — High Importance, Low Performance) included attributes related to waiting time management, staff responsiveness to complaints, and the adequacy of clinic physical facilities. Quadrant II ("Keep Up the Good Work" — High Importance, High Performance) comprised items related to physician competence, clear explanation of diagnosis, and staff empathy. Quadrant III ("Low Priority" — Low Importance, Low Performance) included minor administrative and ancillary service attributes. Quadrant IV ("Possible Overkill" — Low Importance, High Performance) contained attributes related to the appearance of medical uniforms and waiting area decoration. Table 5 summarizes the IPA quadrant distribution.

Table 5. IPA Quadrant Analysis Summary

Quadrant	Label	Attributes	Recommendation
I	Concentrate Here	Waiting time, complaint responsiveness, physical facilities adequacy, parking facilities	Priority improvement
II	Keep Up the Good Work	Physician competence, diagnosis explanation, staff empathy, medication accuracy	Maintain performance
III	Low Priority	Administrative efficiency, minor ancillary services	Gradual improvement
IV	Possible Overkill	Staff uniform appearance, waiting area decoration, signage display	Reallocate resources

DISCUSSION

5.1 Overall Satisfaction and Service Quality

The finding that 72.7% of patients at Ghaniya Clinic were satisfied or very satisfied with healthcare services is broadly consistent with studies conducted in similar private primary care settings in Indonesian urban areas. Pratama and Lestari (2021) reported a satisfaction rate of 68.4% in private clinics in Surabaya, while Wahyuni et al. (2019) found 74.1% satisfaction in Bandung private polyclinics. The CSI value of 76.3% observed in this study places Ghaniya Clinic at the upper boundary of the "Satisfied" category, suggesting that services are generally meeting basic patient expectations but have not yet achieved excellence.

These results indicate that while Ghaniya Clinic is performing adequately in terms of overall service quality, there remains a measurable gap between patient expectations and actual service delivery across multiple dimensions. Addressing this gap is critical for patient retention, as evidence suggests that unsatisfied patients in private clinics are significantly more likely to seek care elsewhere or delay future visits.

5.2 Empathy as the Highest-Performing Dimension

The highest satisfaction in the empathy dimension (mean 3.82 ± 0.51) is an encouraging finding, reflecting positively on the interpersonal skills of Ghaniya Clinic's medical and paramedical staff. High empathy scores typically indicate that patients feel listened to, respected, and that providers demonstrate genuine interest in their well-being. This aligns with the findings of Kurniasih et al. (2020), who identified empathy as the strongest predictor of patient loyalty in Indonesian private clinics.

The emphasis on empathetic care is particularly significant in the Indonesian cultural context, where the doctor-patient relationship is characterized by high power-distance and strong deference to medical authority. When healthcare providers demonstrate warmth and individualized attention, patients are more likely to report positive experiences regardless of other service shortcomings. Sustaining and enhancing empathy-driven care through regular staff training in compassionate communication should remain a core priority for Ghaniya Clinic.

5.3 Tangibility and Responsiveness as Priority Improvement Areas

The lowest satisfaction scores in tangibility (3.41 ± 0.64) and responsiveness (3.52 ± 0.60), combined with their placement in IPA Quadrant I, underscore these as the most urgent areas for improvement. In the tangibility dimension, patients expressed dissatisfaction with the adequacy of physical facilities, including the waiting area space, cleanliness maintenance, and the availability of modern medical equipment. These concerns are common in small to medium private clinics in developing countries that may lack the capital investment capacity of larger hospitals.

Regarding responsiveness, the IPA analysis highlighted patient dissatisfaction with waiting times and the perceived speed of response to complaints. Long waiting times in outpatient primary care are a well-documented source of patient dissatisfaction globally. In the Indonesian context, the introduction of an appointment and queue management system has been shown to significantly reduce perceived waiting time and improve satisfaction scores (Nugroho et al., 2022). Implementation of such systems at Ghaniya Clinic is strongly recommended as a priority intervention.

5.4 Reliability and Assurance as Strengths

The moderate-to-good scores in reliability (3.65 ± 0.57) and assurance (3.75 ± 0.48) indicate that patients generally trust the clinical competence of Ghaniya Clinic's providers and the consistency of service delivery. High assurance scores reflect well on the clinic's recruitment and professional development practices, as well as its adherence to clinical standards. Maintaining these dimensions at their current levels while directing resources toward tangibility and responsiveness improvements will optimize the overall quality improvement strategy.

5.5 Implications for Healthcare Management

From a healthcare management perspective, this study provides several actionable insights. First, the deployment of an electronic queue management and appointment scheduling system would directly address the responsiveness gaps identified. Second, a phased facility renovation plan, focusing initially on the waiting area, sanitation facilities, and diagnostic equipment, would improve tangibility scores. Third, the development of a structured patient feedback mechanism—including complaint boxes, post-visit SMS surveys, and quarterly patient satisfaction reviews—would institutionalize continuous quality monitoring.

These interventions are consistent with the recommendations of the Indonesian Ministry of Health's guidelines for private clinic quality improvement (Permenkes No. 9/2014) and the strategic framework for primary care quality in the JKN era. Investment in quality improvement at private clinics like Ghaniya is particularly important given their role as gatekeepers within the national health insurance system.

5.6 Limitations

Several limitations should be acknowledged. First, the cross-sectional design limits causal inference; longitudinal studies would provide stronger evidence of quality trends. Second, purposive sampling may introduce selection bias, as patients with extreme (very positive or very negative) experiences may be over-represented among those willing to participate. Third, the study was confined to a single clinic in Medan, limiting generalizability to other private clinics in different geographic or socioeconomic contexts. Fourth, social desirability bias may have influenced responses, as patients may have rated services higher than their actual experience due to perceived reciprocity with healthcare providers. Despite these limitations, the findings provide a robust empirical foundation for quality improvement at Ghaniya Clinic.

CONCLUSION

This study provides a comprehensive analysis of healthcare service quality at Ghaniya Clinic, Medan, based on patient satisfaction across the five SERVQUAL dimensions. The overall patient satisfaction rate of 72.7% and a Customer Satisfaction Index of 76.3% indicate that the clinic is performing satisfactorily but has not yet achieved high-quality standards expected of modern primary care facilities. Empathy and assurance emerged as the strongest service dimensions, reflecting the interpersonal strengths of the clinical team. Tangibility and responsiveness were identified as priority improvement areas through Importance-Performance Analysis.

To bridge the quality gap, Ghaniya Clinic's management is strongly recommended to implement a systematic queue management system, undertake phased facility improvements, and establish a formal and continuous patient satisfaction monitoring program. These evidence-based interventions, if executed effectively, have the potential to elevate the clinic's CSI to the "Very Satisfied" category and strengthen patient loyalty and retention.

Future research should employ longitudinal designs, expand the sample to multiple private clinics in Medan for comparative analysis, and investigate the relationship between service quality and clinical outcomes. Qualitative investigations exploring patients' lived experiences of care at Ghaniya Clinic would also provide richer insights to complement the quantitative findings of this study.

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