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SERVICE QUALITY ASSESSMENT IN AZERBAIJAN’S PUBLIC HEALTH SYSTEM USING THE SERVQUAL FRAMEWORK

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ARTICLE INFO	ABSTRACT
<p>Article history Received:2025-07-04 Received in revised form:2025-07-28 Accepted:2025-09-03 Available online:2025-12-25</p>	<p><i>This research examines the application of the SERVQUAL model as a framework for evaluating service quality in the healthcare sector. Given the healthcare system’s vital role in safeguarding public well-being, the quality of services delivered plays a decisive role in shaping patient satisfaction, trust, and clinical outcomes. The SERVQUAL model, which effectively identifies gaps between patients’ expectations and their actual experiences, is employed in this study to evaluate healthcare services based on five essential dimensions: tangibles, reliability, responsiveness, assurance, and empathy. The model’s adaptability makes it particularly suitable for capturing the complexities of healthcare delivery. This analysis is especially pertinent to the context of Azerbaijan, a country where healthcare reforms are actively reshaping service provision. Ongoing initiatives, such as infrastructure modernization, digital transformation through electronic health records, and enhancements in healthcare personnel training, are commendable. However, significant disparities persist, particularly in rural areas, where access to quality healthcare remains limited. Through a detailed application of the SERVQUAL model, the study identifies specific gaps in service delivery that hinder overall patient satisfaction and trust in the system. The findings provide valuable guidance for healthcare administrators, policymakers, and practitioners seeking to implement patient-focused strategies. Key recommendations include investing in continuous staff development, standardizing service protocols, and expanding digital health solutions to enhance service responsiveness and reliability. Furthermore, the study emphasizes the importance of implementing regular performance evaluations and feedback mechanisms to ensure sustained quality improvement. Ultimately, aligning healthcare delivery with patient expectations will contribute to more equitable, effective, and trusted health services in Azerbaijan.</i></p>
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1. Introduction

The healthcare industry holds a pivotal role in society, where the quality of services provided has a direct and profound effect on patient outcomes, satisfaction, and trust in the system. As healthcare becomes more patient-oriented and competitive, understanding and managing

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service quality is a growing priority for providers. In this context, the SERVQUAL model-developed by Parasuraman, Zeithaml, and Berry- serves as a vital tool for evaluating service performance. It systematically assesses the differences between patient expectations and perceptions across five key dimensions: tangibles, reliability, responsiveness, assurance, and empathy. In recent years, Azerbaijan's healthcare sector has entered a phase of dynamic transformation, fueled by economic development, public health initiatives, and an increasing emphasis on patient-centered care. Government-led reforms have sought to upgrade healthcare infrastructure, implement digital health solutions, and bring local services in line with international quality benchmarks. Despite these positive developments, challenges remain in achieving uniform service quality across regions and institutions. Therefore, applying the SERVQUAL model in the Azerbaijani context offers a structured approach to assess existing strengths and areas needing improvement. This study leverages the SERVQUAL framework to pinpoint specific gaps in service quality within Azerbaijan's healthcare system. It seeks to deliver practical insights that healthcare managers and policymakers can use to refine service delivery processes. By gaining a clearer understanding of patient perspectives and experiences, healthcare institutions can develop more effective, patient-centric strategies that raise satisfaction levels and support better health outcomes. Moreover, as the country continues to invest in the modernization and digitalization of its healthcare infrastructure, integrating evidence-based evaluation tools like SERVQUAL will be crucial. Such tools enable organizations to establish continuous feedback loops, benchmark progress, and instill a culture of ongoing quality improvement. In doing so, Azerbaijan's healthcare providers can boost their efficiency, enhance patient loyalty, and elevate the overall performance of the healthcare system.

Importance of Service Quality in Healthcare

Service quality plays a critical role in the healthcare sector, as it significantly affects patient satisfaction, health outcomes, and the overall performance of healthcare systems. In transitional healthcare environments such as Azerbaijan, where systemic reforms and modernization efforts are ongoing, ensuring high-quality service has become a strategic priority for both healthcare institutions and policymakers. In Azerbaijan, recognizing the role of service quality is especially important in the context of healthcare reforms aimed at enhancing patient experiences and increasing the efficiency of service delivery. One of the key initiatives in this process has been the Health Transformation Program, launched in 2003, which places a strong emphasis on service quality measurement and patient satisfaction. As public awareness about healthcare rights and service options continues to grow, patients are increasingly expecting not only effective medical treatments but also a high standard of interpersonal care and service delivery. In response to rising expectations, Azerbaijani healthcare institutions are progressively aligning their operations with international service quality standards. The implementation of quality measurement models, such as SERVQUAL, allows these institutions to assess their performance against standardized benchmarks and to identify critical areas for improvement. This model has proven particularly useful in quantifying service gaps and initiating continuous service enhancement. Healthcare modernization in Azerbaijan includes upgrading physical infrastructure and integrating advanced technologies, which improve both clinical outcomes and patient experiences. For instance, improving tangibles-a key SERVQUAL dimension-such as facility cleanliness, availability of medical equipment, and professional appearance of personnel, has become a focal point. In parallel, efforts to enhance responsiveness and empathy through staff training on communication and patient-centered care are becoming increasingly common.

Regular evaluation using the SERVQUAL framework not only helps healthcare providers track their progress but also fosters a culture of continuous quality improvement. Patient feedback collected through SERVQUAL surveys serves as a vital tool for tailoring services to meet evolving demands. The SERVQUAL model is one of the most widely accepted frameworks for evaluating service quality. Developed by Parasuraman et al. (1988), it measures the gap between customers' expectations and their perceptions of the actual service received. The model categorizes service quality into five distinct dimensions:

- Tangibles: Physical facilities, equipment, and staff appearance.
- Reliability: The provider's ability to perform the promised service dependably and accurately.
- Responsiveness: Willingness to help customers and deliver prompt service.
- Assurance: Knowledge and courtesy of staff, and their ability to instill trust and confidence.
- Empathy: Providing caring, individualized attention to customers.

The SERVQUAL instrument includes 22 paired questions—one set addressing customer expectations and another focusing on customer perceptions. The difference between these scores reveals the quality gap. A zero gap indicates that expectations were met, a negative gap signifies underperformance, and a positive gap represents service exceeding expectations (Savaş & Kesmez, 2014:5; Parasuraman et al., 1991:347). Parasuraman and colleagues (1988:32) also highlighted the model's adaptability, enabling its application across various service industries, including healthcare. Their research further elaborated on four key institutional gaps (Gaps 1–4) that may contribute to discrepancies in service delivery, emphasizing the importance of internal communication and process control mechanisms (Zeithaml et al., 1988:41). A comparative review of 28 studies published between 2010 and 2018 (sourced from databases such as ScienceDirect, Scopus, Dergipark, and ULAKBİM) reveals significant parallels in how service quality is perceived in healthcare systems globally. These studies, selected based on language, publication type, and inclusion of all five SERVQUAL dimensions, form the basis for identifying trends in service expectations and perceptions. The findings consistently show that reliability is the most valued dimension among patients in both national (Turkey, Azerbaijan) and international contexts. Patients prioritize providers who are competent, trustworthy, and capable of delivering consistent care. The alignment between high expectations and high perceptions in the reliability dimension suggests that healthcare providers generally meet patient needs in this area (Papanikolaou & Zygiaris, 2014:204; Nal et al., 2016:845). In contrast, the tangibles dimension frequently scores the lowest in terms of perceived quality. This is evident in both national and international literature, where patients report dissatisfaction with physical aspects of care, including outdated equipment, overcrowded facilities, and lack of cleanliness. The large negative gap in the tangibles dimension indicates that institutions often fail to meet patient expectations in this area, despite advances in medical capabilities (Zun et al., 2018:420; Korkmaz & Çuhadar, 2017:84). Interestingly, the lowest expectation scores vary between national and international contexts. In national studies (e.g., Turkey), the empathy dimension often ranks lowest, possibly due to heavy patient loads and insufficient doctor-to-patient ratios, which limit personalized care (Zaim & Tarım, 2010:22). Internationally, tangibles tend to have the lowest expectations, perhaps because patients place more emphasis on timely and accurate service delivery rather than luxurious facilities (Butt & Run, 2010:668). Regarding gap scores, both

literatures report the largest negative gaps in the tangibles dimension. However, the dimension with the smallest negative gap differs in international studies, its assurance, while in national studies, it's empathy. This could be attributed to cultural differences in how trust and care are perceived and expected in healthcare settings. The review confirms that the SERVQUAL model remains a robust tool for evaluating service quality in healthcare and for identifying dimensions requiring improvement. The consistent importance of reliability across diverse populations further suggests that trustworthy and competent care is a universal healthcare expectation, while secondary expectations such as empathy or physical conditions may be more context-dependent (Çıraklı et al., 2014; Thawesaengskulthai et al., 2015:1032). The similarities observed in the expectations and perceptions of participants in both national and international studies suggest that health is a universal concept (Figure 1).

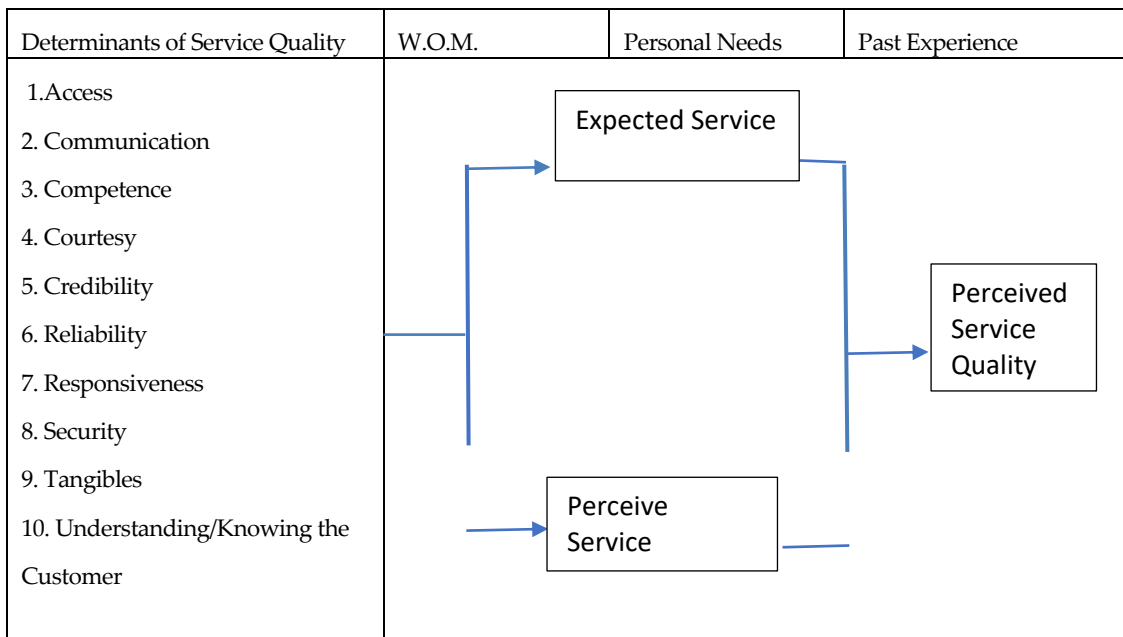


Figure 1: Service Quality Factors (Parasuraman vd, 1985:48; Savaş ve Kesmez, 2014:3).

The importance of service quality in healthcare is undeniable, especially within dynamic and reform-driven environments such as Azerbaijan. As the country continues its transformation towards a more modern, efficient, and patient-oriented healthcare system, the adoption of structured service evaluation tools like the SERVQUAL model can play a pivotal role. By emphasizing high-quality service delivery, healthcare institutions can improve patient satisfaction, optimize clinical outcomes, and secure a competitive advantage in an increasingly responsive health sector. The SERVQUAL model, developed by Parasuraman et al. (1988), offers a systematic approach to identifying and addressing service quality gaps by comparing patient expectations with their actual experiences across five key dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Its application in Azerbaijan can yield several practical improvements:

Gap Analysis for Targeted Service Enhancement

The primary benefit of the SERVQUAL framework is its ability to diagnose discrepancies between what patients expect and what they actually perceive during their interactions with healthcare providers. This diagnostic insight enables institutions to prioritize areas of weakness

and develop data-driven interventions tailored to the unique needs of their patient populations (Parasuraman et al., 1991:347; Savaş & Kesmez, 2014:5). For example, if patients consistently report low satisfaction with waiting times or communication, these can be addressed directly through procedural redesign or staff reallocation.

Human Capital Development through Staff Training

Insights gained from SERVQUAL assessments can guide the development of targeted training programs for healthcare personnel. These programs may focus on enhancing interpersonal communication, promoting empathy, and fostering responsiveness in daily patient interactions. A well-trained workforce is crucial in translating technical care into a positive service experience, and such training has been linked to higher patient satisfaction scores and stronger trust in healthcare institutions (Butt & Run, 2010:668).

Improving Physical Infrastructure and Service Environment

The tangibles dimension of SERVQUAL emphasizes the importance of a healthcare facility's physical environment-its cleanliness, functionality of equipment, and visual appeal. In Azerbaijan, where some hospitals still operate with outdated facilities, this model can justify strategic investments in infrastructure modernization. Enhancing the physical setting not only contributes to patient comfort and safety but also builds credibility and institutional image.

Institutionalizing Patient Feedback Mechanisms

Regular collection of patient feedback through SERVQUAL-based surveys enables a continuous loop of service evaluation and improvement. This ongoing engagement helps healthcare institutions remain responsive to changing patient expectations and societal trends. Incorporating feedback into strategic planning cultivates a patient-centric culture and demonstrates a commitment to quality (Papanikolaou & Zygiaris, 2014:204).

Promoting Patient-Centered Care Practices

By leveraging SERVQUAL data, institutions can realign their service delivery around patient values, preferences, and individual needs-shifting toward a more empathetic and inclusive model of care. This transformation is particularly important in transitional healthcare systems where building long-term patient-provider relationships is essential to encouraging trust and treatment adherence/

Benchmarking against International Best Practices

The SERVQUAL model also serves as a benchmarking tool, allowing Azerbaijani healthcare institutions to compare their performance with international standards and identify globally recognized best practices. This comparative approach encourages policy learning and adaptation of successful models from other countries, supporting the government's broader goals of internationalization and healthcare integration (Thawesaengskulthai et al., 2015:1032).

Implementing Quality Assurance and Regulatory Compliance Programs

Findings derived from SERVQUAL assessments can inform the development of institution-wide quality assurance frameworks. These programs establish clear service performance metrics, ensure accountability, and support compliance with national and international regulatory requirements. Systematic monitoring of service dimensions strengthens institutional resilience and operational transparency (Burböck, 2014:161).

Conclusion

Comparative research utilizing the SERVQUAL model to assess service quality in healthcare across national and international studies reveals notable commonalities. Although expectations and perceptions of healthcare services are influenced by variables such as cultural background, economic development, and healthcare infrastructure, this study demonstrates that individuals from diverse contexts share remarkably similar views on what constitutes quality care. This alignment underscores the universality of healthcare needs, reinforcing the notion that access to reliable and compassionate healthcare is a global human concern, transcending regional and cultural boundaries.

Despite these insights, the current study is subject to certain limitations. The scope was confined to studies indexed in a limited number of databases, with a publication window spanning from 2010 to 2018. Furthermore, the analysis focused exclusively on the original five dimensions of the SERVQUAL model-tangibles, reliability, responsiveness, assurance, and empathy. Future research would benefit from expanding the time range, utilizing broader indexing platforms, and incorporating extended or modified SERVQUAL dimensions, which have been proposed in recent healthcare quality research. Additionally, a deeper examination of contextual variables-such as geographic diversity, healthcare system models, and population demographics-could enrich understanding of how these factors influence service quality expectations. In the specific context of Azerbaijan's healthcare system, which is currently undergoing systemic reforms and modernization, the SERVQUAL model offers a structured and reliable framework for driving quality enhancement. By analyzing gaps between patient expectations and actual service experiences, healthcare institutions can prioritize improvements across service delivery dimensions. Targeted interventions-such as upgrading physical infrastructure, enhancing staff training programs, improving patient-provider communication, and institutionalizing continuous feedback mechanisms-can significantly enhance patient satisfaction and trust. Importantly, the use of SERVQUAL also aligns with Azerbaijan's strategic objectives of meeting international healthcare standards and promoting patient-centered care. As healthcare institutions seek to elevate their reputation and performance, this model provides a data-driven basis for both internal benchmarking and external comparison with best practices globally. Ultimately, adopting the SERVQUAL model within Azerbaijan's healthcare system not only facilitates continuous service improvement but also contributes to broader goals of strengthening healthcare system resilience, improving public health outcomes, and creating a more equitable and effective patient experience. As the country moves forward in its health sector reform journey, frameworks like SERVQUAL will be essential in ensuring that healthcare delivery keeps pace with patient expectations and global standards of quality.

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