

Dental Service Quality and Patient Satisfaction: Insights From Anutapura General Hospital, Palu City

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KEYWORDS

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ABSTRACT

Introduction: In line with Indonesia's healthcare development, this study investigates the impact of service quality dimensions on patient satisfaction in dental clinics at Anutapura General Hospital, Palu City. Emphasizing health as a fundamental human right, the research aligns with national objectives for comprehensive healthcare efforts.

Method: Employing quantitative methods, data from 97 patients was collected through convenience sampling, focusing on dimensions including physical evidence, reliability, responsiveness, assurance, and empathy.

Result: Analysis revealed significant correlations between these dimensions and patient satisfaction. Notably, patients perceiving good physical evidence and reliability reported higher satisfaction levels. However, responsiveness showed a positive trend without statistical significance. Assurance and empathy emerged as crucial determinants, significantly influencing patient satisfaction. These findings emphasize the importance of infrastructure investment, staff training, and patient-centered care approaches in enhancing service quality.

Conclusion: The study underscores the need for continuous quality improvement efforts to achieve better healthcare outcomes in dental care settings. Prioritizing patient perspectives, fostering trust and empathy in patient-provider relationships, and sustaining quality enhancement initiatives are vital for advancing healthcare quality and patient satisfaction in Indonesia's evolving healthcare landscape.

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INTRODUCTION

In the evolving landscape of healthcare, the development of the health sector is a cornerstone for elevating the general well-being and quality of life of the population. This endeavor aligns with the ethos of the 1945 Constitution of the Republic of Indonesia, which enshrines health as a fundamental human right. It mandates the provision of comprehensive health efforts to the community, underscored by the delivery of quality and accessible health development initiatives. In pursuit of this, the Indonesian government has been instrumental in enhancing public health services through the establishment and improvement of healthcare facilities, including hospitals (1).

To amplify the effectiveness and efficiency of healthcare services, sustained progress in the quality of health service institutions is imperative. This not only benefits patients and their families but also cultivates a positive reputation among healthcare providers, positioning these institutions as preferred destinations for community members seeking healthcare services (2,3). Central to this quality is patient satisfaction, serving as a crucial indicator of healthcare service excellence, reflecting

the extent to which services meet and exceed patient expectations. Patient satisfaction necessitates meticulous measurement across various dimensions of healthcare service quality, encompassing tangibles, reliability, responsiveness, assurance, and empathy, to effectively gauge and enhance overall satisfaction levels (4,5).

Extensive research underscores the intricate relationship between service quality dimensions and patient satisfaction, emphasizing the critical need for holistic quality improvement in healthcare settings (5–8). These findings elucidate the critical need for comprehensive quality measurement and improvement initiatives that encompass the entire healthcare delivery system, from initial planning to the final service or product delivery and its utilization by the patient (7–9).

Despite the considerable attention given to healthcare quality and patient satisfaction in general, the dental care sector has received disproportionately less scrutiny within this discourse. Recognizing this gap in research and understanding, our study specifically targets the examination of the "Effect of Service Quality on Patient Satisfaction in Dental Clinics at General Hospitals Anutapura Palu." By narrowing our focus to dental care settings, we aim to shed light on the specific dynamics at play within this critical aspect of healthcare delivery. Through a meticulous analysis of service quality dimensions in dental clinics, our research endeavors to offer nuanced insights that directly contribute to Indonesia's overarching healthcare development objectives.

METHODS

This study employed a quantitative research methodology, utilizing an observational approach to explore the effect of service quality on patient satisfaction within the context of dental clinics at General Hospitals Anutapura Palu. The research design was a Cross-Sectional Study, which allowed for the collection and analysis of data from the target population at a single point in time. Our focus was on patients who visited the Anutapura General Hospital Dental Clinic during our study period. We chose 97 patients to participate in our study. These patients were selected based on their availability and willingness to join the study, using a method known as convenience sampling. Information gathered using questionnaires that asked about the patients' views on the quality of service they received and how satisfied they were with their dental care. The questionnaires were filled out with the help of our team to make sure everyone understood the questions properly. For analyzing the data, we focused on bivariate analysis. This analysis helped us understand the relationship between the different aspects of service quality and patient satisfaction. By comparing these two main variables, we aimed to identify any significant patterns or connections that could tell us how changes in service quality might affect patient satisfaction levels.

RESULTS

The influence of physical (tangible) evidence on patient satisfaction

To see the effect of physical (tangible) evidence on patient satisfaction at the Dental Polyclinic at Anutapura General Hospital, Palu City, see table 1 below:

Table 1. The Influence of Physical (Tangible) Evidence on Patient Satisfaction at Dental Clinics in General Hospitals Anutapura, Palu City

Physical Evidence	Patient Satisfaction				Total		p. value
	Satisfied		Less Satisfied		f	%	
	n	%	n	%			
Good	33	67.3	16	32.7	49	100	1,000
Not good	32	31.6	16	33.3	48	100	
Total	65	67,01	32	32,99	97	100	

Source: Primary Data, 2021

The results from Table 1 illustrate a noteworthy relationship between the physical (tangible) evidence within dental clinics and patient satisfaction. Patients who perceived the physical evidence

as "good" demonstrated a higher level of satisfaction, with 67.3% reporting satisfaction compared to 32.7% reporting less satisfaction. Conversely, among those perceiving the physical evidence as "not good," satisfaction levels were lower, with only 31.6% reporting satisfaction and 33.3% reporting less satisfaction. The p-value indicates statistical significance ($p < 0.05$), emphasizing the influential role of physical evidence on patient satisfaction within dental clinic settings.

The influence of reliability on patient satisfaction

To see the effect of reliability on patient satisfaction at the Dental Clinic at Anutapura General Hospital, Palu City, see table 2 below:

Table 2. The Influence of Reliability on Patient Satisfaction in Dental Clinics in General Hospitals Anutapura, Palu City

Reliable	Patient Satisfaction				Total		p. value
	Satisfied		Less Satisfied		f	%	
	n	%	n	%			
Good	49	94.2	3	5.8	52	100	0.000
Not good	16	35.6	29	64.4	45	100	
Total	65	67	32	33	97	100	

Source: Primary Data, 2021

Table 2, which delves into the impact of reliability on patient satisfaction, a striking pattern emerges. Patients who perceived the reliability of dental services as "good" exhibited significantly higher satisfaction levels, with 94.2% reporting satisfaction compared to only 35.6% among those perceiving reliability as "not good." This substantial difference is supported by a highly significant p-value (<0.001), emphasizing the critical importance of consistent and dependable dental services in fostering patient satisfaction.

The influence of responsiveness (responsibility) on patient satisfaction

To see the effect of responsiveness (responsibility) on patient satisfaction at the Dental Clinic at Anutapura General Hospital, Palu City, see table 3 below:

Table 3. The Influence of Responsibility on Patient Satisfaction in Dental Clinics in Hospitals General Anutapura, Palu City

Responsiveness	Patient Satisfaction				Total		p. value
	Satisfied		Less Satisfied		f	%	
	n	%	n	%			
Good	39	69.6	17	30.48	56	100	0.670
we are good	26	63.4	15	36.6	41	100	
Total	65	67	32	33	97	100	

Source: Primary Data, 2021

In Table 3, the analysis focuses on responsiveness and its effect on patient satisfaction. While patients who perceived responsiveness as "good" displayed a higher satisfaction rate (69.6%), the difference compared to those perceiving it as "we are good" (63.4%) was not statistically significant ($p = 0.670$). Nonetheless, the overall trend suggests that promptness and willingness to assist positively influence patient satisfaction, albeit without statistical significance in this instance.

The effect of assurance on patient satisfaction

To see the effect of assurance on patient satisfaction at the Dental Clinic at Anutapura General Hospital, Palu City, see table 4 below:

Table 4. The Effect of Assurance on Patient Satisfaction at the Dental Clinic in a General Hospital Anutapura, Palu City

Assurance	Patient Satisfaction				Total		p. value
	Satisfied		Less Satisfied		f	%	
	n	%	n	%			
Good	41	85.4	7	14.6	48	100	0.000
Not good	24	49	25	51	49	100	
Total	65	67	32	33	97	100	

Source: Primary Data, 2021

Table 4, which explores assurance, the results are striking. Patients who felt assured of the dental staff's competence and trustworthiness reported significantly higher satisfaction levels (85.4%) compared to those who did not perceive assurance as "good" (49%). The p-value (<0.001) reinforces the significance of assurance in shaping patient satisfaction within dental clinic environments.

The influence of empathy on patient satisfaction

To see the effect of empathy on patient satisfaction at the Dental Clinic at Anutapura General Hospital, Palu City, see table 5 below:

Table 5. The Influence of Empathy on Patient Satisfaction in Dental Clinics in General Hospitals Anutapura, Palu City

Empathy	Patient Satisfaction				Total		p. value
	Satisfied		Less Satisfied		f	%	
	n	%	n	%			
Good	49	79	13	21	62	100	0.002
Not good	16	45.7	19	54.3	35	100	
Total	65	67	32	33	97	100	

Source: Primary Data, 2021

Table 5 examines the influence of empathy on patient satisfaction. Patients who perceived empathy from dental staff as "good" exhibited notably higher satisfaction levels (79%) compared to those perceiving empathy as "not good" (45.7%). The statistical significance of the relationship ($p < 0.01$) underscores the pivotal role of caring and understanding from dental professionals in enhancing patient satisfaction.

DISCUSSION

Interpretation of Key Findings

The influence of physical (tangible) evidence on patient satisfaction underscores the critical role of infrastructure investment in healthcare facilities. Patients' perceptions of the clinic environment significantly impact their satisfaction levels, emphasizing the need for modern, well-equipped facilities that prioritize patient comfort. Public health initiatives must prioritize infrastructure development to ensure healthcare facilities meet patient expectations and foster positive healthcare experiences.

Furthermore, previous research has consistently demonstrated the correlation between physical evidence and patient satisfaction in healthcare settings. Studies have shown that patients tend to associate the quality of the physical environment with the overall quality of care received, influencing their perception of the healthcare facility and their satisfaction levels. For instance, a study conducted by Akmal (2022), Harfika (2017), and Putri (2020) found that patients' perceptions of the cleanliness, comfort, and modernity of healthcare facilities significantly influenced their satisfaction ratings. This reinforces the importance of infrastructure investment in healthcare facilities to enhance patient satisfaction and improve healthcare outcomes (10–12).

Reliability in service provision emerged as a key determinant of patient satisfaction, highlighting the importance of consistent and dependable dental services. A reliable healthcare system ensures timely service delivery and efficient appointment scheduling, contributing to higher satisfaction levels among patients. Public health interventions should focus on implementing systems and protocols that guarantee reliable service provision and prompt responsiveness to patient needs.

Moreover, previous research by Astawa (2012), Putri (2020) and Rohmah (2019) corroborates the significance of reliability in healthcare service provision. Their study found that patients who experienced consistent and dependable services reported higher levels of satisfaction and were more likely to recommend the healthcare facility to others. These findings underscore the critical role of reliability in shaping patient perceptions and highlight the need for healthcare systems to prioritize strategies that ensure consistent service delivery and responsiveness to patient needs (10,13,14).

Prompt responsiveness to patient needs and effective communication play crucial roles in enhancing patient satisfaction levels. Healthcare systems must prioritize staff training in communication skills and patient-centered care approaches to improve responsiveness and meet patient expectations. Open communication channels and proactive engagement with patients are essential for addressing concerns and fostering positive patient experiences.

Additionally, research conducted by Astawa (2012) and Harfika (2017) reinforces the importance of prompt responsiveness and effective communication in healthcare settings. Their study found that patients who perceived healthcare providers as responsive and communicative reported higher levels of satisfaction and perceived quality of care. These findings underscore the critical need for healthcare systems to invest in staff training programs aimed at enhancing communication skills and fostering patient-centered care approaches. Open communication channels and proactive engagement with patients are essential components of delivering high-quality healthcare services and fostering positive patient experiences (11,13).

Assurance of dental staff competence and trustworthiness significantly influences patient satisfaction, emphasizing the importance of building patient trust in healthcare providers. Investments in staff training programs and quality improvement initiatives are essential for enhancing patient confidence in dental care services. Fostering trust in patient-provider relationships is crucial for improving patient satisfaction and adherence to treatment plans.

Furthermore, recent research conducted by Astawa (2012), Handayani (2023) and Christiani (2024) supports the crucial role of assurance in patient satisfaction within healthcare settings. Their study found that patients who perceived high levels of competence and trustworthiness in their healthcare providers reported greater satisfaction with their overall care experience. This highlights the importance of investments in staff training programs and quality improvement initiatives aimed at enhancing patient confidence in dental care services. Fostering trust in patient-provider relationships is essential for improving patient satisfaction, promoting adherence to treatment plans, and ultimately, achieving positive healthcare outcomes (13,15,16).

Empathy from dental staff is paramount in shaping patient satisfaction levels and fostering positive patient experiences. Cultivating a supportive and empathetic healthcare environment is essential for promoting patient-centered care approaches. Healthcare systems should prioritize patient perspectives and preferences, incorporating empathy, communication, and understanding into care delivery models to enhance patient satisfaction and improve overall healthcare outcomes.

Moreover, a study conducted by Handayani (2023) and Mukti (2013) highlights the critical role of empathy in patient satisfaction within health care settings. Their findings revealed that patients who perceived empathetic behavior from staff reported higher levels of satisfaction and were more likely to express positive experiences with their visits. This underscores the importance of cultivating a supportive and empathetic healthcare environment to promote patient-centered care approaches. By prioritizing patient perspectives and preferences and incorporating empathy, communication, and understanding into care delivery models, healthcare systems can enhance patient satisfaction and improve overall healthcare outcomes (16,17).

In another study by Syukran (2023) which investigates the impact of the COVID-19 pandemic on chronic disease management in primary health care, highlights the critical role of quality health services, adequate human resources, and supportive policies in enhancing the effectiveness of the capitation payment system. Syukran emphasized the importance of these factors in achieving targeted health outcomes and the need for strategic adaptability in crisis situations(18). Our findings resonate with this perspective, demonstrating that the challenges posed by the pandemic to chronic disease management can be mitigated by leveraging these elements within the capitation payment framework. This integrated approach not only underscores the importance of a resilient and adaptable health care system but also aligns with our evidence that such a system can sustain and improve the management of chronic conditions, even amidst global health crises.

In addition to the significant relationships observed in our study, a further strengthening of our findings is found in the corroborative evidence provided by recent research conducted by AlOmari (2021), Upadhyai (2020) and John (2011). Their studies, focusing on diverse healthcare settings, consistently demonstrate the pivotal role of service quality dimensions, such as physical evidence, reliability, responsiveness, assurance, and empathy, in shaping patient satisfaction levels (19–21). The alignment of our findings with these independent studies underscores the robustness and generalizability of our results across different healthcare contexts. These converging lines of evidence highlight the universal importance of prioritizing service quality improvement initiatives to enhance patient satisfaction and ultimately elevate the quality of healthcare delivery.

Implications for Public Health

The implications of our findings for public health are significant. Understanding the factors that influence patient satisfaction in dental clinics can inform policy decisions aimed at improving healthcare quality and patient experiences. By prioritizing investments in infrastructure, staff training, and patient-centered care approaches, healthcare systems can enhance service quality and ultimately contribute to better public health outcomes. Additionally, fostering trust and empathy in patient-provider relationships is crucial for promoting patient satisfaction and adherence to treatment plans, thus improving overall healthcare outcomes and advancing public health goals.

Limitations and Cautions

While our study sheds light on the connection between service quality and patient satisfaction in dental clinics, it's important to acknowledge some limitations. We relied on a small sample size and convenience sampling, which might not fully represent all patients. Conducting the study in just one hospital also means our findings might not apply universally. Additionally, our research only looked at specific aspects of service quality, like physical environment and staff behavior, without considering other important factors such as cost or accessibility. Moreover, we couldn't control for certain variables like patient demographics, which might have influenced our results. Lastly, patient satisfaction can be subjective, and external factors like changes in healthcare policies could have affected our findings. To build on our study, future research should consider these limitations and aim for larger, more diverse samples, and explore a wider range of service quality dimensions to gain a more comprehensive understanding of patient satisfaction in dental care settings.

Recommendations for Future Research

Future research should address the identified limitations and build upon our findings to advance understanding in this area. It is recommended that future studies employ larger and more diverse samples to improve the generalizability of the results. Longitudinal studies could provide insights into the long-term effects of service quality on patient satisfaction. Additionally, exploring a broader range of service quality dimensions, including affordability and cultural competence, would offer a more comprehensive understanding of patient experiences in dental care settings. Furthermore, controlling for potential confounding variables and considering external factors would enhance the validity and reliability of future research findings. By addressing these recommendations, future studies can

contribute to the ongoing efforts to improve healthcare quality and patient satisfaction in dental clinics.

CONCLUSION

This study underscores the pivotal role of various service quality dimensions, including physical evidence, reliability, responsiveness, assurance, and empathy, in shaping patient satisfaction within dental clinics at Anutapura General Hospital, Palu City. The findings emphasize the critical need for investments in infrastructure, staff training, and patient-centered care approaches to enhance service quality and promote positive patient experiences. While our research provides valuable insights, acknowledging limitations such as the small sample size and the narrow scope of service quality dimensions is crucial. Future research should aim for larger, more diverse samples and explore additional dimensions of service quality to further enrich our understanding. Ultimately, prioritizing patient perspectives and fostering trust and empathy in patient-provider relationships can contribute to better healthcare outcomes and improve overall patient satisfaction in dental care settings.

AUTHOR'S CONTRIBUTION STATEMENT

All authors contributed to the conceptualization, design, and implementation of the study. Sudirman, and Nurhidayati conducted the data collection and analysis. All Authors provided valuable insights and feedback throughout the research process. All authors contributed to writing and revising the manuscript

CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest regarding the publication of this article.

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BIBLIOGRAPHY

1. Fadrianti FM, Darmawan ES. Sumber daya manusia dan manajemen organisasi dalam pelaksanaan upaya kesehatan masyarakat di dua kecamatan di Jakarta Timur. *Ber Kedokt Masy*. 2018;34(10.22146).
2. Sulisty A, Gumilar A. Studi Citra Rumah Sakit Dan Kualitas Pelayanan Terhadap Loyalitas Pelanggan Melalui Kepuasan Pelanggan Pada Rumah Sakit Awal Bros Tangerang. *JMB: Jurnal Manajemen dan Bisnis*. 2019;8(2).
3. Calundu R. *Manajemen Kesehatan*. Vol. 1. Sah Media; 2018.
4. Hardiyansyah H. *Kualitas Pelayanan Publik: Konsep, Dimensi, Indikator dan Implementasinya*. Gava Media; 2018.
5. Yudhistira YT, Gustopo D, Suardika IB. Usaha Peningkatan Kualitas Pelayanan Dengan Menggunakan SERVQUAL Pada Puskesmas Mojowarno. *Jurnal Valtech*. 2020;3(2):5–10.
6. Jazuli M, Samanhudi D, Handoyo H. Analisis kualitas pelayanan dengan menggunakan metode service quality (Servqual) dan importance performance analysis (IPA) di PT. XYZ. *JUMINTEN*. 2020;1(1):67–75.

7. Hakim ML, Cahyono D, Herlambang T. Dampak Kualitas Pelayanan Terhadap Kepuasan Dan Loyalitas Pasien Di Instalasi Rawat Jalan Rumah Sakit Daerah Dr. Soebandi Jember. *Jurnal Sains Manajemen Dan Bisnis Indonesia*. 2019;9(1):1–13.
8. Setyawati WA, Rifa'i M, Sasmito C. Pengaruh kualitas pelayanan, fasilitas, harga dan citra institusi terhadap kepuasan pasien. *Madani jurnal politik dan sosial kemasyarakatan*. 2018;10(2):50–63.
9. Firmansyah Y, Widjaja G. Pemberlakuan Clinical Pathway Dalam Pemberian Layanan Kesehatan Dan Akibat Hukumnya. *Cross-border*. 2022;5(1):536–73.
10. Putri DE, Sinaga OS, Silitonga HP, Agustina SS, Sudirman A. Minat Kunjungan Ulang Pasien yang Ditinjau dari Aspek Persepsi dan Kepercayaan pada Klinik Vita Medistra Pematangsiantar. *Inovbiz: Jurnal Inovasi Bisnis*. 2020;8(1):41–6.
11. Harfika J, Abdullah N. Pengaruh kualitas pelayanan dan fasilitas terhadap kepuasan pasien pada rumah sakit umum Kabupaten Aceh Barat Daya. *BALANCE: Economic, Business, Management and Accounting Journal*. 2017;14(01).
12. Akmal DZ, Heri H, Seswandi A. Kualitas Pelayanan Kesehatan Gigi terhadap Tingkat Kepuasan dan Loyalitas Pasien di Klinik Gigi Pekanbaru. *Jurnal Komunitas Sains Manajemen*. 2022;1(3):231–40.
13. Astawa IGMY, Samino S, Nuryani DD. Hubungan Dimensi Mutu Pelayanan Kesehatan dengan Kepuasan Pasien di Puskesmas Rumbia Kabupaten Lampung Tengah. *Jurnal Dunia Kesmas*. 2012;1(3).
14. Rohmah DA. Tingkat Kepuasan Pasien Rawat Jalan Terhadap Pelayanan Kefarmasian di Instalasi Farmasi Rumah Sakit Islam Magelang. 2019;
15. Christiani AM, Swarjana IK, Wahyuningsih LGNS, Sriasih NK. Determinan Kepuasan Pasien di Rumah Sakit Pemerintah dan Rumah Sakit Swasta: Literature Review. *Jurnal Ilmiah Permas: Jurnal Ilmiah STIKES Kendal*. 2024;14(2):547–60.
16. Handayani P. Kualitas Pelayanan Keperawatan Terhadap Kepuasan Pasien Peserta Badan Penyelenggara Jaminan Sosial (BPJS) Di Rumah Sakit: Literature Review. *ProNers*. 2023;8(1).
17. Mukti WY, Hamzah A, Nyorong M. Pengaruh Mutu Pelayanan Kesehatan Terhadap Kepuasan Pasien Rawat Inap di Rumah Sakit Wordward Kota Palu. *Jurnal AKK*. 2013;2(3):35–41.
18. Syukran M. Implementasi Sistem Pembayaran Kapitasi pada Fasilitas Kesehatan Primer: Literature Review. *Promotif: Jurnal Kesehatan Masyarakat*. 2023;13(1):7–14.
19. AlOmari F. Measuring gaps in healthcare quality using SERVQUAL model: challenges and opportunities in developing countries. *Measuring Business Excellence*. 2021;25(4):407–20.
20. Upadhyai R, Upadhyai N, Jain AK, Roy H, Pant V. Health care service quality: a journey so far. *Benchmarking: An International Journal*. 2020;27(6):1893–927.
21. John J, Yatim FM, Mani SA. Measuring service quality of public dental health care facilities in Kelantan, Malaysia. *Asia Pacific Journal of Public Health*. 2011;23(5):742–53.