

SERVICE QUALITY AND INPATIENT SATISFACTION AT ANUTAPURA GENERAL HOSPITAL PALU

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Article Info

Received: Apr 21, 2026
Revised: May 23, 2026
Accepted: May 30, 2026
OnlineVersion: Jun 12, 2026

Abstract

Patient satisfaction is an important indicator for evaluating hospital service quality because it reflects the match between patient expectations and the services actually received during hospitalization. This study aimed to analyze the relationship between service quality and inpatient satisfaction at Anutapura General Hospital, Palu. This quantitative study used a cross-sectional design. The population consisted of all inpatients at Anutapura General Hospital, and 110 respondents were selected using accidental sampling. Data were collected using a structured questionnaire and analyzed through univariate analysis, bivariate crosstabulation, and multivariate multiple linear regression. The results showed that all dimensions of service quality were significantly associated with inpatient satisfaction: tangibles (beta = 0.151; p = 0.010), reliability (beta = 0.150; p = 0.023), responsiveness (beta = 0.159; p = 0.011), assurance (beta = 0.405; p = 0.000), and empathy (beta = 0.173; p = 0.012). Assurance was the most dominant dimension affecting inpatient satisfaction. These findings imply that hospitals should prioritize patient safety, staff competence, clear information, privacy protection, and consistent standard operating procedures to improve inpatient satisfaction sustainably.

Keywords: hospital, inpatient care, patient satisfaction, service quality, assurance



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INTRODUCTION

Patient satisfaction is widely recognized as a key indicator in evaluating the quality of healthcare services. It reflects patients' perceptions and assessments of the services they receive during their interactions with healthcare providers, and it indicates the extent to which patient expectations are met by actual healthcare experiences. In hospital settings, patient satisfaction is closely related to the overall performance of service delivery, particularly in inpatient care where patients require continuous medical attention and support.

Hospitals play a crucial role as healthcare institutions that provide essential services for individuals and communities. Therefore, hospitals are required to consistently improve their service quality to meet the evolving needs and expectations of society. Service quality in hospitals is expected to align with minimum service standards, professional standards, and established standard operating procedures. In this study, service quality was assessed through five dimensions, namely tangibles, reliability, responsiveness, assurance, and empathy, which collectively shape patient experiences and evaluations of healthcare services.

Improving healthcare service quality is fundamentally aimed at achieving patient satisfaction and enhancing the quality of care. Previous studies have shown that higher service quality is associated with increased patient satisfaction. Prihatini and Budiati (2024) and Daniyah (2021) reported that better

healthcare service performance contributes to greater patient satisfaction. Ariyanti et al. (2022) also emphasized that service quality dimensions play an important role in influencing patient satisfaction, while Yuliaridha et al. (2023) highlighted that inadequate facilities and insufficient responsiveness from healthcare personnel may reduce patient satisfaction.

Anutapura General Hospital, located in Central Sulawesi Province, has continuously sought to provide high-quality healthcare services to the community. However, optimal service delivery remains a challenge, particularly after the earthquake, tsunami, and liquefaction disaster on 28 September 2018, which caused significant damage to hospital facilities. The hospital strategic plan reported that the public satisfaction index had not been achieved during 2019-2021, indicating ongoing concerns related to service performance and facility adequacy. The revitalization of the hospital building and supporting facilities, inaugurated in March 2024, is expected to strengthen inpatient service delivery. Therefore, this study aimed to analyze the relationship between service quality and inpatient satisfaction at Anutapura General Hospital, Palu.

RESEARCH METHOD

Research Design

This study employed a quantitative approach with a cross-sectional design. The design was selected to analyze the relationship between dimensions of service quality and inpatient satisfaction at a single period of observation.

The research was conducted at Anutapura General Hospital, Palu, located at Jl. Kangkung No. 1, Donggala Kodi Subdistrict, Ujuna District, Palu City. Data collection was carried out in December 2025.

Population and Sample

The study population consisted of all inpatients at Anutapura General Hospital, Palu, in 2024, totaling 106,144 patients. The sample was selected using accidental sampling. Sample size determination was calculated using the Lemeshow formula, resulting in 110 respondents who met the eligibility criteria and were available during the survey period.

Research Procedure

The study began with preparation of the questionnaire, determination of eligible respondents, data collection from inpatient respondents, data coding, and statistical analysis. Respondents were selected from hospitalized patients who were available during the survey period and willing to provide responses regarding their service experience.

Instruments and Data Collection Techniques

Data were collected through a survey method using a structured questionnaire. The questionnaire assessed patient satisfaction and five dimensions of service quality, namely tangibles, reliability, responsiveness, assurance, and empathy.

Data Analysis Technique

Data analysis was performed in several stages, including univariate analysis to describe respondent characteristics and study variables, bivariate analysis using crosstabulation, and multivariate analysis using multiple linear regression to identify the influence of service quality dimensions on inpatient satisfaction. Classical assumption tests included normality, multicollinearity, and heteroscedasticity tests.

RESULTS AND DISCUSSION

Results of Classical Assumption Tests

The normality of the data was examined using the graphical Normal Probability Plot (P-P Plot) and the Kolmogorov-Smirnov statistical test. The P-P Plot showed that the data points were distributed around and followed the direction of the diagonal line, indicating that the residuals approximately followed a normal distribution.

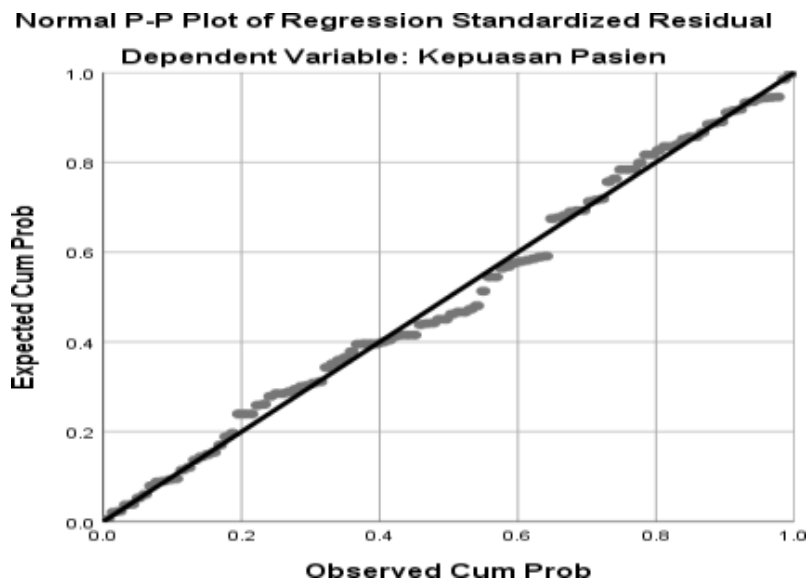


Figure 1. Results of the Normality Test (P-P Plot)

Table 1. Kolmogorov-Smirnov Normality Test

Indicator	Value
N	110
Mean	0.0000000
Std. Deviation	1.39245974
Most Extreme Differences - Absolute	0.065
Most Extreme Differences - Positive	0.065
Most Extreme Differences - Negative	-0.044
Test Statistic	0.065
Asymp. Sig. (2-tailed)	0.200

Source: SPSS output, 2025

The Kolmogorov-Smirnov test showed an Asymp. Sig. value of 0.200, which is greater than the predetermined significance level of $\alpha = 0.05$. Therefore, the residual data did not deviate from a normal distribution.

Multicollinearity Test

Table 2. Results of the Multicollinearity Test

Variable	Tolerance	VIF
Tangibles (X1)	0.403	2.482
Reliability (X2)	0.317	3.159
Responsiveness (X3)	0.356	2.810
Assurance (X4)	0.244	4.090
Empathy (X5)	0.297	3.371

Source: SPSS output, 2025

All independent variables had tolerance values greater than 0.10 and VIF values less than 10. Therefore, there was no indication of multicollinearity in the regression model.

Heteroscedasticity Test Results

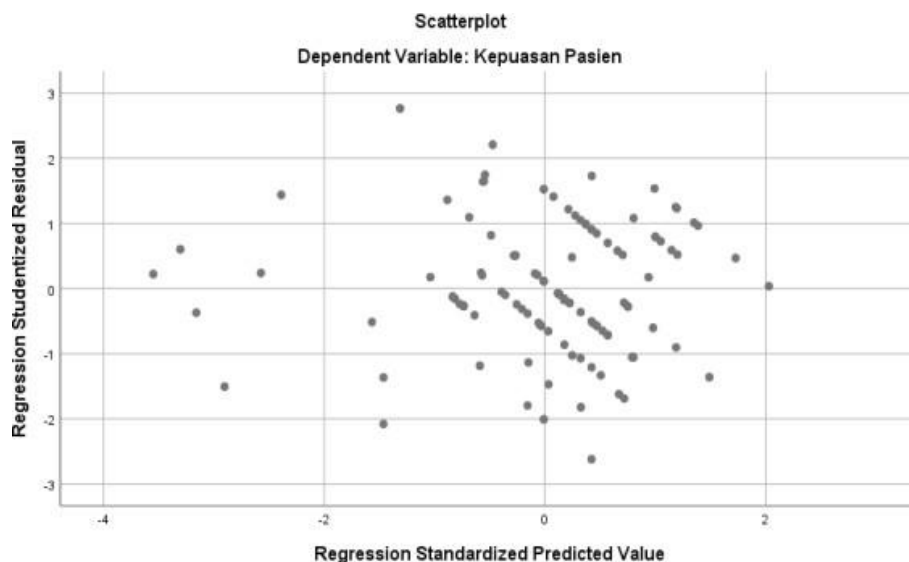


Figure 2. Scatterplot of the Heteroscedasticity Test Results

Based on the scatterplot, the points were randomly distributed, did not form a specific pattern, and were spread both above and below zero on the Y-axis. These results indicate that heteroscedasticity did not occur and that the regression model satisfied the homoscedasticity assumption.

Results of Multivariate Analysis

Table 3. Results of Multiple Linear Regression Analysis

Independent Variable	Regression (beta)	Coefficient	t-statistic	Sig.
Tangibles (X1)	0.151		2.609	0.010
Reliability (X2)	0.150		2.301	0.023
Responsiveness (X3)	0.159		2.585	0.011
Assurance (X4)	0.405		5.447	0.000
Empathy (X5)	0.173		2.560	0.012

Source: SPSS output, 2025

The regression results indicate that all dimensions of service quality significantly influenced inpatient satisfaction at Anutapura General Hospital, Palu. Assurance had the largest regression coefficient (beta = 0.405; $p = 0.000$), indicating that it was the most dominant factor, followed by empathy, responsiveness, tangibles, and reliability.

The Effect of Tangibles on Patient Satisfaction

The tangibles dimension had a significant positive relationship with inpatient satisfaction (beta = 0.151; $p = 0.010$). In this study, tangibles were reflected in the cleanliness and neatness of inpatient rooms, comfort of the treatment environment, availability of medical examination equipment, and the neat and professional appearance of healthcare personnel. These visible aspects are directly experienced by patients and can shape their perception of hospital service quality.

Tangibles function as visible cues that patients use to evaluate service quality, particularly when patients do not fully understand the technical aspects of medical services (Kotler & Keller, 2016). Adequate facilities, a clean environment, and professional staff appearance contribute to positive perceptions of services. This finding is consistent with Ariyanti et al. (2022) and Daniyah (2021), who reported that physical facilities and service environments are significantly associated with patient satisfaction.

The Effect of Reliability on Patient Satisfaction

Reliability showed a significant positive relationship with inpatient satisfaction (beta = 0.150; $p = 0.023$). Reliability was measured through indicators such as prioritizing patients who require immediate treatment, ensuring that medical procedures are consistent with information communicated to patients, delivering professional services, and maintaining consistent care throughout hospitalization.

Reliability emphasizes the ability of service providers to deliver services accurately and consistently as promised (Tjiptono, 2019). In healthcare settings, reliability is closely associated with timeliness, accuracy of medical procedures, and consistency in implementing service protocols. This finding supports Prihatini and Budiati (2024), who identified reliability as an important determinant of

patient satisfaction, particularly in relation to the accuracy of medical interventions and consistency of care.

The Effect of Responsiveness on Patient Satisfaction

Responsiveness had a significant positive relationship with inpatient satisfaction ($\beta = 0.159$; $p = 0.011$). Responsiveness was measured through the ability of healthcare staff to provide clear and understandable information, give patients opportunities to ask questions and express complaints, conduct examinations according to schedule, and respond quickly to patient concerns.

Responsiveness refers to the willingness of service providers to assist patients and deliver services promptly and accurately (Tjiptono, 2019). In inpatient care, responsiveness is important because patient needs may be urgent and require immediate attention. This finding is in line with Prihatini and Budiati (2024) and Yuliaridha et al. (2023), who emphasized that service speed, clarity of information, and response to complaints influence patient satisfaction.

The Effect of Assurance on Patient Satisfaction

Assurance was the most dominant dimension influencing inpatient satisfaction ($\beta = 0.405$; $p = 0.000$). Assurance was reflected in the fulfillment of patients' rights to healthcare services and information, the ability of healthcare personnel to provide a sense of safety during treatment, protection of patient privacy, and competence of healthcare workers in delivering services.

Assurance relates to competence, credibility, and the ability of service providers to foster trust (Tjiptono, 2019). In healthcare services, assurance is critical because patients are often in vulnerable conditions and rely heavily on the professionalism and competence of healthcare personnel. When patients feel safe, believe that their rights and privacy are respected, and trust the competence of healthcare workers, their satisfaction increases. This result is consistent with Prihatini and Budiati (2024), Daniyah (2021), and Ariyanti et al. (2022), who reported that assurance is a key factor in shaping patient trust and satisfaction.

The Effect of Empathy on Patient Satisfaction

Empathy had a significant positive relationship with inpatient satisfaction ($\beta = 0.173$; $p = 0.012$). Empathy was reflected in the friendliness of healthcare staff, attention to patient health conditions and progress, willingness to listen to patient complaints, and concern for patient needs and comfort during hospitalization.

Empathy is the ability of service providers to understand patient needs and provide individualized attention (Tjiptono, 2019). Patients require not only medical treatment but also emotional and psychological support. Healthcare personnel who communicate effectively, demonstrate concern, and provide personal attention can make patients feel valued and cared for. This finding supports Prihatini and Budiati (2024) and Yuliaridha et al. (2023), who reported that staff empathy and friendly communication are important factors influencing patient satisfaction.

CONCLUSION

Based on the results of this study, it can be concluded that service quality significantly influences inpatient satisfaction at Anutapura General Hospital, Palu. All dimensions of service quality, namely tangibles, reliability, responsiveness, assurance, and empathy, were significantly related to inpatient satisfaction. Among these dimensions, assurance was identified as the most dominant factor affecting patient satisfaction. This finding indicates that patients' sense of safety, trust in the competence of healthcare personnel, fulfillment of patient rights, provision of clear information, and protection of patient privacy play central roles in improving inpatient satisfaction.

It is recommended that the hospital strengthen service reliability by consistently enforcing standard operating procedures, improving coordination among healthcare professionals, and ensuring that all medical procedures are carried out in accordance with information previously communicated to patients. Future researchers are encouraged to apply longitudinal designs, include additional variables such as administrative systems, service costs, and workload, and use qualitative approaches to explore patient experiences in greater depth.

ACKNOWLEDGMENTS

The author would like to express gratitude to Anutapura General Hospital, Palu, for granting permission and support during the research process. The author also thanks all respondents who participated in this study, as well as the university and academic supervisors for their guidance and support.

AUTHOR CONTRIBUTIONS

Conceptualization, I.A.P.H. and J.F.; Methodology, I.A.P.H.; Validation, J.F. and M.; Formal Analysis, I.A.P.H.; Investigation, I.A.P.H.; Resources, I.A.P.H.; Data Curation, I.A.P.H.; Writing - Original Draft Preparation, I.A.P.H.; Writing - Review & Editing, J.F. and M.; Supervision, J.F. and M.; Project Administration, I.A.P.H. All authors have read and approved the final manuscript.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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