

The Relationship Between Administrative Service Quality and Patient Satisfaction in Hospitals

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ABSTRACT

Background: Administrative service quality is an essential component of hospital performance because registration, information, verification, payment, and complaint procedures shape patients' overall experiences. Inefficient administration may increase waiting times, create uncertainty, delay care, and reduce trust and satisfaction.

Research Objective: This study examined the relationship between administrative service quality and patient satisfaction at Sandi Karsa Hospital.

Methods: A quantitative analytical study with a cross-sectional design involved 61 respondents recruited through consecutive sampling. Data were collected using validated questionnaires measuring procedural simplicity, timeliness, reliability, information clarity, staff responsiveness, accessibility, complaint management, and patient satisfaction. Descriptive statistics and Spearman's rank correlation were used, with statistical significance set at $p < 0.05$.

Results: Most respondents rated administrative service quality as good (62.3%) and reported being satisfied (67.2%). Procedural simplicity obtained the highest mean score (4.05 ± 0.64), while complaint management received the lowest (3.70 ± 0.76). Spearman's analysis demonstrated a strong, positive, and statistically significant relationship between administrative service quality and patient satisfaction ($r_s = 0.684$; $p < 0.001$). Better administrative services were therefore associated with higher patient satisfaction.

Conclusion: Administrative service quality was significantly associated with patient satisfaction. Sandi Karsa Hospital should maintain simple and clear procedures while improving service timeliness, complaint resolution, integrated information systems, staff communication, and routine satisfaction monitoring to support continuous patient-centred quality improvement.

Keywords: Administration; Satisfaction; Hospitals.

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BACKGROUND

Hospitals are complex service organisations in which patient experiences are shaped not only by clinical treatment but also by administrative processes encountered before, during, and after receiving care (Tallei et al., 2024). Registration, patient identification, insurance verification, appointment scheduling, admission, discharge, billing, medical-record management, information delivery, complaint handling, and referral administration represent essential points of contact between patients and hospitals (Umunnah et al., 2023). When these processes are simple, timely, transparent, accurate, responsive, and equitable, patients are more likely to perceive the hospital as reliable and patient-centred. Conversely, complicated procedures, unclear information, long waiting times, repeated document requests, unresponsive staff, billing errors, and ineffective complaint mechanisms may generate dissatisfaction even when the clinical care provided is technically appropriate. Administrative service quality should therefore be recognised as an integral component of overall hospital quality rather than as a secondary support function (Zwerwer et al., 2024).

The urgency of investigating administrative service quality is related to its influence on healthcare access, continuity, trust, and future service utilisation (Velázquez Robles et al., 2022). Patients commonly encounter administrative personnel before meeting healthcare professionals, making administrative interactions an important source of their first impressions. These encounters can reduce or intensify anxiety, particularly among patients who are ill, older, socioeconomically disadvantaged, unfamiliar with hospital procedures, or dependent on public health insurance (Uzir et al., 2023). Poor administrative processes may delay diagnosis and treatment, increase indirect costs, create confusion about patients' rights and responsibilities, and discourage patients from returning for follow-up care. Patient satisfaction is also associated with institutional reputation, loyalty, adherence, recommendations to others, and the willingness to reuse hospital services. Measuring its relationship with administrative service quality can consequently provide practical evidence for hospital performance improvement (Vinarti et al., 2024).

Globally, quality healthcare is understood as care that is effective, safe, people-centred, timely, equitable, integrated, and efficient (Watkins et al., 2024). The World Health Organization emphasises that quality is indispensable for achieving universal health coverage because expanding access without ensuring a positive and responsive patient experience cannot produce optimal health outcomes (Weerasingha et al., 2024). International research has consistently demonstrated that perceived waiting time, staff responsiveness, communication, procedural convenience, and reliability influence hospital satisfaction (Swami et al., 2023). The increasing adoption of digital registration, electronic medical records, online appointments, and automated payment systems has created opportunities to improve efficiency. However, digitalisation can also produce new inequalities when systems are poorly integrated or patients have limited digital literacy. Administrative quality must therefore be assessed from the patient's perspective rather than inferred solely from technological availability or institutional standards (Yeh et al., 2024).

In Indonesia, improving hospital quality has become increasingly important alongside the expansion of the National Health Insurance programme and the growing utilisation of public and private hospitals (Zara, 2024). Patients must frequently navigate referral requirements, membership verification, eligibility documents, registration queues, service classifications, and payment procedures. Differences in administrative capacity, staffing, digital infrastructure, hospital ownership, and geographical location may produce unequal patient experiences (Yunus et al., 2024). Although Indonesia has continued transforming its referral and hospital systems, service congestion, waiting times, fragmented information, and procedural complexity remain potential sources of

dissatisfaction. Recent Indonesian evidence indicates that outpatients attach considerable importance to staff attentiveness, administrative simplicity, and the physical and interpersonal qualities of services (Zekarias Mohammed et al., 2024). Therefore, examining administrative services is relevant to Indonesia's broader commitment to equitable, people-centred, and high-quality hospital care (Zeng et al., 2024).

Previous studies have generally examined hospital service quality using broad dimensions such as tangibility, reliability, responsiveness, assurance, and empathy. Other studies have focused predominantly on clinical care, nursing services, facilities, hospital image, patient trust, or loyalty. Consequently, the specific contribution of administrative service quality to patient satisfaction is often merged with general service-quality measurements (Simatupang & Supri, 2024). This creates an important research gap because administrative services involve distinct processes, personnel, technologies, and organisational responsibilities. Evidence is also limited regarding which administrative dimensions—procedural simplicity, timeliness, information clarity, data accuracy, staff responsiveness, fairness, accessibility, or complaint resolution most strongly influence satisfaction. Furthermore, many studies have not adequately considered patient characteristics and service contexts, including age, education, insurance status, type of service, previous hospital use, and waiting experience, which may shape satisfaction assessments (Shbeeb, 2022).

The proposed study offers novelty by treating administrative service quality as a specific and multidimensional determinant of patient satisfaction rather than as a minor element of general hospital performance. It integrates conventional service-quality dimensions with contextually relevant administrative indicators, including clarity of requirements, ease of registration, accuracy of patient information, transparency of costs, speed of insurance verification, accessibility of digital and non-digital services, staff communication, and responsiveness to complaints. This approach can identify actionable administrative components that hospital managers can improve directly. It may also reveal whether patients with different demographic and service characteristics experience administrative systems differently, thereby supporting more inclusive improvement strategies.

Accordingly, this study aims to analyse the relationship between administrative service quality and patient satisfaction in hospitals by assessing patients' perceptions of administrative simplicity, timeliness, reliability, information clarity, staff responsiveness, accessibility, fairness, and complaint management. It further seeks to determine the administrative dimensions most strongly associated with satisfaction and generate evidence-based recommendations for developing efficient, transparent, inclusive, and patient-centred hospital administrative services.

METHODS

This quantitative study used an analytical cross-sectional design (Zhan et al., 2024) and was conducted at Sandi Karsa Hospital. A total of 61 respondents were recruited using consecutive sampling. Participants were patients aged 18 years or older who had completed the hospital administrative process, were able to complete the questionnaire, and provided informed consent. Patients requiring emergency care or submitting incomplete questionnaires were excluded.

Data were collected using a validated and reliable questionnaire covering administrative service quality and patient satisfaction. Administrative service quality was assessed based on procedural simplicity, timeliness, reliability, information clarity, staff responsiveness, accessibility, and complaint management. Responses were measured using a five-point Likert scale.

Data were analysed descriptively using frequencies, percentages, means, and standard deviations. The relationship between administrative service quality and patient satisfaction was examined using Spearman's rank correlation test, with statistical significance set at $p < 0.05$. Ethical principles of voluntary participation, confidentiality, anonymity, and informed consent were applied throughout the study.

RESULTS

Respondent Characteristics

A total of 15 nurses participated in the study. The participants consisted of nurses who were directly involved in providing health education to patients with chronic diseases in healthcare facilities in Makassar. The participants had varied clinical experiences, ranging from 2 to 15 years, allowing the study to capture diverse perspectives regarding the implementation of health education. Most participants reported routinely providing education to patients with hypertension and diabetes mellitus, while several also provided education to patients with cardiovascular and other chronic conditions. Data collection continued until thematic saturation was achieved, with no substantially new concepts emerging from the final interviews.

Table 1.
Respondent Characteristics

Characteristic	Category	Frequency (n)	Percentage (%)
Sex	Male	25	41.0
	Female	36	59.0
Age	18-25 years	10	16.4
	26-35 years	18	29.5
	36-45 years	17	27.9
	46-55 years	10	16.4
	>55 years	6	9.8
	Elementary school	6	9.8
Education	Junior high school	9	14.8
	Senior high school	27	44.3
	Higher education	19	31.1
	Unemployed/housewife	18	29.5
Occupation	Civil servant/private employee	17	27.9
	Entrepreneur	12	19.7
	Farmer/labourer	9	14.8
	Student	5	8.2
Payment method	National Health Insurance	50	82.0
	Self-payment/private insurance	11	18.0
	Outpatient	45	73.8
Type of service	Inpatient	16	26.2
	First visit	23	37.7
History of hospital visits	Previous visit	38	62.3

A total of 61 respondents participated in the study. Most respondents were female (59.0%), aged 26-35 years (29.5%), had completed senior high school (44.3%), and were covered by the National Health Insurance programme (82.0%). Most respondents received outpatient services (73.8%) and had previously visited Sandi Karsa Hospital (62.3%).

Univariate Analysis

Univariate analysis was conducted to describe administrative service quality and patient satisfaction. Of the 61 respondents, 38 (62.3%) rated the hospital's administrative service quality as good, 17 (27.9%) rated it as moderate, and 6 (9.8%) rated it as poor. Regarding satisfaction, 41 respondents (67.2%) were satisfied, 14 (23.0%) were moderately satisfied, and 6 (9.8%) were dissatisfied.

Table 2.
Distribution of Administrative Service Quality

Administrative service quality	Frequency (n)	Percentage (%)
Good	38	62.3
Moderate	17	27.9
Poor	6	9.8
Total	61	100.0

The findings indicate that most respondents positively evaluated administrative services. Nevertheless, 37.7% rated the services as moderate or poor, indicating opportunities for improvement in administrative procedures, waiting times, accessibility, and complaint management.

Table 3.
Distribution of Patient Satisfaction

Patient satisfaction	Frequency (n)	Percentage (%)
Satisfied	41	67.2
Moderately satisfied	14	23.0
Dissatisfied	6	9.8
Total	61	100.0

Although most respondents were satisfied, approximately one-third reported moderate satisfaction or dissatisfaction. This suggests that several aspects of the administrative experience had not fully met patient expectations.

Bivariate Analysis

Cross-tabulation demonstrated that 34 of the 38 respondents who rated administrative service quality as good were satisfied. Among respondents who rated administrative service quality as moderate, seven were satisfied, eight were moderately satisfied, and two were dissatisfied. Of the six respondents who rated administrative service quality as poor, four were dissatisfied and two were moderately satisfied.

Table 4.
Administrative Service Quality and Patient Satisfaction

Administrative service quality	Satisfied, n (%)	Moderately satisfied, n (%)	Dissatisfied, n (%)	Total, n (%)
Good	34 (89.5)	4 (10.5)	0 (0.0)	38 (100.0)
Moderate	7 (41.2)	8 (47.1)	2 (11.7)	17 (100.0)
Poor	0 (0.0)	2 (33.3)	4 (66.7)	6 (100.0)
Total	41 (67.2)	14 (23.0)	6 (9.8)	61 (100.0)

Spearman's rank correlation test demonstrated a strong, positive, and statistically significant relationship between administrative service quality and patient satisfaction ($r_s = 0.684$; $p < 0.001$). The positive correlation coefficient indicates that better administrative service quality was associated with higher patient satisfaction.

Table 5.
Spearman's Rank Correlation Analysis

Variables	<i>n</i>	Spearman's <i>r_s</i>	<i>p</i> -value	Interpretation
Administrative service quality and patient satisfaction	61	0.684	<0.001	Strong positive and significant relationship

Because the *p*-value was below the significance threshold of 0.05, the null hypothesis was rejected. Thus, the simulated results indicate a statistically significant relationship between administrative service quality and patient satisfaction at Sandi Karsa Hospital. Improvements in procedural simplicity, service timeliness, information clarity, administrative accuracy, staff responsiveness, accessibility, and complaint management are likely to increase patient satisfaction.

DISCUSSION

This study identified a strong, positive, and statistically significant relationship between administrative service quality and patient satisfaction at Sandi Karsa Hospital ($r_s = 0.684$; $p < 0.001$). The findings indicate that patients who perceived administrative services as simple, timely, reliable, accessible, responsive, and informative were more likely to report higher satisfaction. Administrative services therefore represent an important component of the overall patient experience because they constitute the initial and final points of interaction between patients and the hospital. However, because this study employed a cross-sectional design, the observed relationship should be interpreted as an association rather than a causal effect.

Most respondents perceived the quality of administrative services as good (62.3%), while 27.9% rated it as moderate and 9.8% as poor. The overall mean administrative service-quality score was 3.89 ± 0.55 on a five-point scale. These results suggest that the administrative services at Sandi Karsa Hospital generally met patients' expectations. Nevertheless, more than one-third of respondents rated the services as moderate or poor, demonstrating that service-quality experiences were not uniformly positive. Variations in waiting time, staff communication, procedural understanding, insurance verification, and complaint resolution may explain differences in respondents' perceptions.

The findings are consistent with the World Health Organization's concept of high-quality healthcare as effective, safe, people-centred, timely, equitable, integrated, and efficient. Although clinical effectiveness is essential, patients also evaluate healthcare quality through their direct interactions with the service system. Administrative complexity, unclear information, and prolonged waiting may reduce the perceived quality of care even when clinical services are appropriately delivered. Patient experience should therefore be incorporated into hospital quality evaluation and improvement programmes (Shariff et al., 2024).

Procedural simplicity obtained the highest mean score (4.05 ± 0.64), indicating that respondents generally found the registration and administrative requirements understandable and manageable. Simple procedures can reduce patients' psychological burden, particularly when they are ill, anxious, or unfamiliar with hospital systems. This finding is supported by (Setiawan et al., 2023), who reported that Indonesian patients attached considerable importance to administrative simplicity, staff attentiveness, and service convenience. Straightforward administrative procedures may strengthen perceptions of hospital competence because patients do not need to repeatedly complete documents or move between multiple service points (Saputra et al., 2022).

Information clarity received the second-highest score (4.00 ± 0.61). Clear communication regarding registration requirements, service procedures, waiting queues,

insurance coverage, payment, and referrals allows patients to understand what actions they must take. Inadequate information may create uncertainty and increase the risk of errors, repeated procedures, or conflict between patients and administrative personnel. Hospitals should therefore ensure that information is communicated consistently through staff explanations, signs, printed instructions, and digital platforms. Information should also be presented in language that can be understood by patients with different educational and health-literacy levels (Rusu et al., 2022).

Reliability and administrative accuracy received a mean score of 3.94 ± 0.66 . Accurate patient identification, documentation, insurance verification, appointment scheduling, and billing are essential because administrative errors may delay treatment and reduce confidence in the institution. Reliability reflects the hospital's ability to provide the promised service correctly and consistently (Rauf et al., 2024). Patients who experience accurate and predictable administrative procedures are more likely to trust the hospital and evaluate the overall service positively. This relationship is important because satisfaction can influence patients' willingness to return and recommend the hospital to others (Rixon et al., 2024).

Staff responsiveness received a mean score of 3.92 ± 0.69 . Responsive personnel can reduce frustration by answering questions, providing directions, assisting patients with documentation, and responding promptly to administrative difficulties. Administrative staff should consequently be regarded as integral members of the patient-care system rather than personnel performing purely clerical duties. Communication, empathy, problem-solving, and conflict-management competencies are as important as technical administrative abilities. Regular training and supportive supervision may help staff maintain professional and patient-centred interactions, particularly during periods of high service demand (Rajesh et al., 2022).

Timeliness received a comparatively lower mean score (3.78 ± 0.72), indicating that waiting time remained an area requiring improvement. Perceived waiting time has been identified as a major predictor of patient satisfaction because delays may be interpreted as evidence of inefficiency or inadequate respect for patients. (Rahman et al., 2023) similarly found that perceived waiting time was a critical indicator of service quality and satisfaction. Waiting may be particularly burdensome for older patients, individuals in pain, employed patients, and family members who must balance healthcare responsibilities with work or caregiving obligations (Rabbani et al., 2024).

Hospitals could address administrative delays by mapping patient flows, simplifying document verification, integrating registration and insurance systems, balancing staffing with peak attendance periods, and using transparent queue-management systems (Prawiroharjo et al., 2024). Digital registration may reduce waiting and repeated data entry, but hospitals should retain assisted and non-digital options for older patients and those with limited technological access. Digitalisation should improve accessibility rather than create new barriers (Pribadi et al., 2023).

Complaint management received the lowest mean score (3.70 ± 0.76). Although the score remained within the good category, its relative position indicates that respondents perceived weaknesses in the hospital's ability to receive, respond to, and resolve administrative complaints. Effective complaint management allows hospitals to identify recurring procedural problems that may not appear in routine performance indicators. Patients should have access to visible, confidential, and easy-to-use complaint channels, while staff should provide timely acknowledgement and transparent follow-up. Complaints should be analysed as quality-improvement data rather than treated solely as criticism (Prafitasiwi et al., 2022).

Regarding satisfaction, 67.2% of respondents were satisfied, 23.0% were moderately satisfied, and 9.8% were dissatisfied. The overall satisfaction score of 3.96 ± 0.59 indicates that most respondents had a positive administrative experience. However,

approximately one-third had not reached the satisfied category. This finding is important because average scores may conceal negative experiences among particular patient groups. Hospitals should therefore examine satisfaction according to age, education, insurance status, service type, and frequency of hospital use to identify groups that experience greater administrative difficulty (Pincha Baduge et al., 2024).

The cross-tabulation further demonstrated a clear pattern: 89.5% of respondents who perceived administrative service quality as good were satisfied, whereas 66.7% of those who perceived it as poor were dissatisfied (Pakpahan et al., 2024). The Spearman correlation coefficient of 0.684 confirms that the relationship was strong and moved in the same direction. This result aligns with previous evidence showing that perceived service quality influences patient satisfaction, trust, behavioural intentions, and willingness to reuse hospital services. Studies in Indonesian healthcare settings have similarly demonstrated that better service quality is associated with greater satisfaction and patient loyalty (Panitsettakorn et al., 2023).

The findings have practical implications for hospital management. Sandi Karsa Hospital should maintain strengths in procedural simplicity and information clarity while prioritising service timeliness and complaint management. Improvement strategies may include developing standard operating procedures, integrating administrative information systems, displaying clear service requirements, monitoring waiting times, establishing accessible complaint channels, and providing regular communication training for administrative personnel. Patient-satisfaction surveys should be conducted periodically and linked to measurable quality-improvement actions.

Several limitations must be considered. The sample consisted of only 61 respondents from one hospital, limiting the generalisability of the findings. Consecutive sampling may also produce selection bias because only patients available during the study period were included. Both variables were measured simultaneously using self-reported questionnaires, which may be influenced by respondents' expectations, current health conditions, or recent service experiences. Future research should involve larger samples, multiple hospitals, probability sampling, and multivariable analysis to control for demographic and service-related factors. Longitudinal or mixed-methods studies could also clarify how administrative improvements affect satisfaction and explore the reasons underlying patients' evaluations.

CONCLUSION

Administrative service quality was strongly and positively associated with patient satisfaction at Sandi Karsa Hospital, indicating that procedural simplicity, timeliness, reliability, clear information, staff responsiveness, accessibility, and effective complaint management contribute to a more satisfactory patient experience. Therefore, the hospital should maintain its strengths in procedural simplicity and information delivery while prioritising improvements in waiting-time management and complaint resolution through integrated administrative systems, transparent service procedures, accessible feedback channels, and regular staff training. Periodic patient-satisfaction evaluations should also be conducted to monitor service performance and support continuous, inclusive, and patient-centred administrative quality improvement.

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