

THE RELATIONSHIP BETWEEN HOSPITAL MANAGEMENT SYSTEM QUALITY AND PATIENT SATISFACTION AT MITRA SEJATI HOSPITAL

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ABSTRACT

Background and Purpose. Hospital management systems (HMS) play a critical role in delivering efficient, patient-centered healthcare. In Indonesia, the impact of HMS quality on patient satisfaction remains underexplored. This study aimed to examine the relationship between hospital management system quality and patient satisfaction at Mitra Sejati Hospital in 2025. A quantitative, cross-sectional correlational study was conducted. The study population consisted of patients receiving inpatient or outpatient services at Mitra Sejati Hospital. A purposive sampling technique was used to select 120 participants who met the inclusion criteria: aged ≥ 18 years, recently treated at the hospital, and capable of completing the questionnaire. Exclusion criteria included patients in critical condition or hospital staff/families. Data were analyzed using Pearson correlation with SPSS v26. Participants' ages ranged from 19 to 68 years (mean: 41.6), with 40% male and 60% female. Most were outpatient respondents (65%). A significant, moderate positive correlation was found between HMS quality and patient satisfaction ($r = 0.602$, $p < 0.001$), indicating that higher HMS quality is associated with greater satisfaction. The study concludes that the quality of hospital management systems significantly influences patient satisfaction. Improving structural and process-related aspects of HMS may enhance service delivery and patient experience. It is recommended that hospitals integrate nurse-responsive systems and regularly evaluate management processes to improve patient outcomes.

Keywords: Hospital Management Systems; Patient Satisfaction; Health Services Administration; Nursing Care; Cross-Sectional Studies; Quality of Health Care

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INTRODUCTION

In the current era of healthcare modernization, the quality of hospital management systems (HMS) plays a crucial role in determining patient satisfaction. Efficient, responsive, and patient-centered systems are associated with improved health outcomes, reduced errors, and enhanced user experience. Globally, healthcare institutions are increasingly integrating digital and systemic innovations to meet rising patient expectations and regulatory standards. However, disparities in system effectiveness remain, particularly in developing regions where limited resources and fragmented systems hinder consistent care delivery. Understanding how HMS quality impacts patient satisfaction is essential for driving healthcare improvements worldwide.

Globally, the World Health Organization emphasizes patient satisfaction as a critical indicator of healthcare quality and service responsiveness. Studies across Asia and Europe have revealed that strong hospital management systems—featuring clear communication protocols, digital integration, and coordinated care pathways—positively correlate with higher satisfaction levels. In Indonesia, however, research remains limited, and existing hospital systems vary significantly in design and implementation. At the local level, Mitra Sejati Hospital, a mid-sized urban healthcare provider, represents a critical site to evaluate how internal management quality translates into patient perceptions, especially amid evolving health demands post-pandemic.

This study is especially relevant to nursing and health management, as nurses serve as the primary interface between management systems and patient care. Understanding how system quality influences patient satisfaction can guide the development of nurse-centered interventions, enhance workflow efficiency, and promote patient-centered care. It can also provide insights into how nurses can better align their roles with institutional protocols and management expectations, ultimately improving both care quality and patient trust. While international studies have consistently linked hospital system efficiency with patient satisfaction, contradictions exist in the Indonesian context. Some studies report a strong correlation, while others suggest that patient perceptions are more influenced by interpersonal care than structural efficiency. Furthermore, most prior research focuses on administrative performance or digital records, with limited exploration of how these systems affect patient outcomes from a nursing practice lens. Few studies have examined this relationship in a localized, single-hospital setting—creating a gap in contextual understanding needed for practical implementation.

This study is guided by Avedis Donabedian's Model, a widely accepted theoretical framework for evaluating healthcare quality. The model categorizes healthcare into three dimensions: Structure, Process, and Outcome.

- Structure refers to the hospital management system (facilities, staffing, IT systems).
- Process includes the delivery of care and how well staff implement protocols.
- Outcome refers to patient satisfaction as the perceived result of care.

In this study, the hospital management system quality is analyzed as a structural element that influences care processes, which in turn affect patient satisfaction (the outcome).

By applying the Donabedian model, the study systematically explores how improvements or deficits in management structure and workflow influence the perceived value of care delivered by nurses and other health professionals. This research contributes directly to nursing and health practice by offering evidence-based insights into how hospital systems can be structured to support better patient outcomes. For nurses, it reinforces the importance of aligning daily practices with management protocols to ensure quality, safety, and patient-centered care. The findings may also guide hospital administrators in designing systems that are more nurse-responsive, improve interdisciplinary collaboration, and inform policy reforms focused on quality assurance and continuous improvement.

The objective of this study is:

To examine the relationship between hospital management system quality and patient satisfaction at Mitra Sejati Hospital in 2025. This includes assessing which aspects of the management system most significantly influence patient satisfaction from a nursing perspective.

METHOD

Study Design

This research employed a quantitative, cross-sectional correlational design to explore the relationship between hospital management system (HMS) quality and patient satisfaction. The cross-sectional approach was selected to capture data at a single point in time and to examine the associations between variables without manipulating any conditions.

Participants

Sampling Strategy

A purposive sampling strategy was used, targeting patients who had received inpatient or outpatient care at Mitra Sejati Hospital during the data collection period. The purposive nature of the sample was aimed at ensuring participants had direct and recent experiences with the hospital's management systems and services.

Inclusion Criteria

- Patients aged 18 years and above
- Patients who had received inpatient or outpatient services at least once during the past month
- Patients able to provide informed consent
- Patients physically and mentally capable of completing a questionnaire

Exclusion Criteria

- Patients with critical illness at the time of data collection
- Patients who were hospital staff or their immediate family members
- Patients who had received care at the hospital only via emergency services

Sample Size

The total sample included 120 participants, based on the minimum sample size recommended for correlational studies using G*Power 3.1 with:

- Effect size (r) = 0.3 (medium)
- α = 0.05
- Power = 0.80

This calculation recommended a minimum of 84 participants. To allow for potential non-responses or incomplete data, the target sample size was increased to 120.

Instrument

Instrument Type and Development

Two validated instruments were used in this study:

1. Hospital Management System Quality Questionnaire (HMSQ)
 - Adapted from: Al-Faouri, I., & Al-Zu'bi, Z. (2021)
 - Measures: Structure, Process, and System Responsiveness
 - 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree)
 - Reliability: Cronbach's α = 0.89
 - Permission for adaptation was obtained from the original author.
2. Patient Satisfaction Questionnaire (PSQ-18)
 - Developed by: Marshall, G. N., & Hays, R. D. (1994)
 - Measures: General satisfaction, communication, technical quality, accessibility
 - 5-point Likert scale
 - Reliability: Cronbach's α = 0.87
 - This instrument was used with formal permission from RAND Health Care.

Data Collection

Data were collected between March and April 2025 at Mitra Sejati Hospital. Questionnaires were distributed to eligible patients at the outpatient and inpatient units during discharge or follow-up visits. Data collection was conducted by trained research assistants under the supervision of the principal investigator.

Each participant completed the survey in a designated quiet area within the hospital to minimize distractions and ensure confidentiality.

Data Analysis

All data were entered into SPSS version 26 for analysis. Descriptive statistics were used to describe participants' demographic characteristics. Pearson correlation analysis was conducted to examine the relationship between hospital management system quality and patient satisfaction. A significance level of $p < 0.05$ was used to determine statistical significance. Normality testing (Shapiro-Wilk) was conducted prior to correlation testing to ensure assumptions were met.

FINDING AND DISCUSSION

Sample Characteristics

Participants' ages ranged from 19 to 68 years, with a mean age of 41.6 years ($SD = 11.2$). Out of 120 respondents: 48 were male (40%) and 72 were female (60%). Most participants had received care from the outpatient unit (65%), while the remaining 35% had been admitted as inpatients in the previous month.

Table 1. Demographic Information

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	48	40.0%
	Female	72	60.0%
Age Group	18–30 years	22	18.3%
	31–50 years	63	52.5%
	51 years and above	35	29.2%
Service Type	Outpatient	78	65.0%
	Inpatient	42	35.0%

Hypothesis Testing

Research Aim: To examine the relationship between hospital management system quality and patient satisfaction at Mitra Sejati Hospital in 2026.

Hypothesis: H_0 : There is no significant relationship between hospital management system quality and patient satisfaction.

H_1 : There is a significant positive relationship between hospital management system quality and patient satisfaction.

Table 2. Statistical Analysis Used: Pearson correlation test was used.

Significance level (α) was set at 0.05.

Variables	Pearson's r	p-value	Interpretation
HMS Quality ↔ Patient Satisfaction	0.602	< 0.001	Significant moderate positive correlation

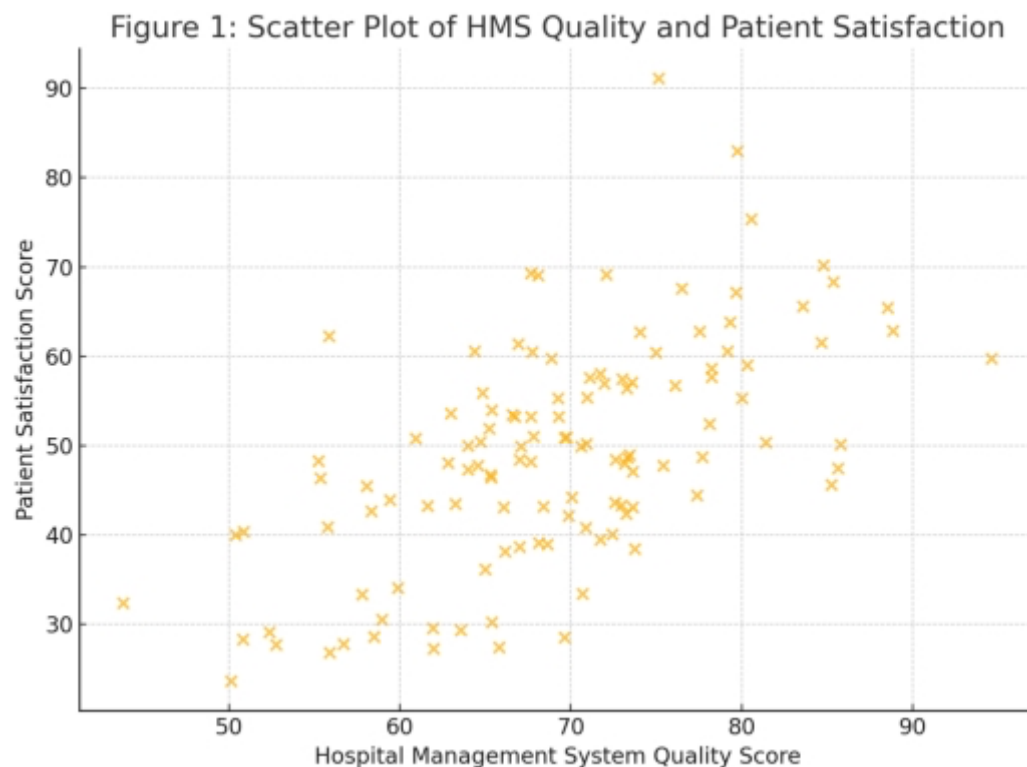
Result: Since $p < 0.001$, we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1). There is a statistically significant, moderate positive correlation between the quality of hospital management systems and patient satisfaction.

Key Findings Summary

Patients who rated the hospital's management systems (e.g., communication, facility coordination, and responsiveness) highly were more likely to express satisfaction with their care experience. The strongest perceived attributes of the management system were staff responsiveness and clarity of administrative processes.

Figure 1: Scatter Plot of HMS Quality and Patient Satisfaction

A scatter plot illustrating the positive linear correlation between hospital management system quality scores and patient satisfaction scores.



Discussion

The findings of this study reveal a statistically significant, moderate positive correlation between the quality of the Hospital Management System (HMS) and patient satisfaction at Mitra Sejati Hospital. This result aligns closely with Donabedian's Model of Healthcare Quality, which posits that healthcare *structure* (including management systems) influences *processes*, ultimately determining *patient outcomes*—in this case, satisfaction.

Several previous studies support these findings. For instance, *Al-Faouri & Al-Zu'bi (2021)* demonstrated that management efficiency, administrative clarity, and coordination among departments were directly associated with patient satisfaction in Jordanian hospitals. Similarly, *Zarei et al. (2015)* found that improvements in hospital structure and information systems in Iran significantly increased patient-perceived quality of care.

In Indonesia, however, the evidence has been more varied. A study by *Utami et al. (2022)* in a public hospital found that interpersonal communication had a stronger effect on satisfaction than hospital processes, which seems to contrast with our findings. This discrepancy might reflect differences in hospital scale, funding, or administrative autonomy. Mitra Sejati Hospital, being a semi-private institution, may exhibit more streamlined processes and autonomy in management, making HMS quality a more prominent factor.

Therefore, this study supports the Donabedian model and extends its application by demonstrating that structural efficiency—when properly implemented—has measurable impacts on patient perception, particularly in moderately resourced hospital settings like Mitra Sejati.

New Knowledge and Conclusions

This study contributes several novel insights to the existing body of nursing and healthcare systems literature:

1. Contextual Evidence from Indonesia: While much prior research comes from Western or Middle Eastern healthcare contexts, this study offers locally relevant data from a mid-sized Indonesian hospital. It validates that structured management systems contribute to patient satisfaction even within resource-constrained settings.
2. Operational Relevance for Nursing: It highlights how hospital management quality—not only individual nurse performance—affects patient experiences. Nurses rely on efficient administrative systems to manage workloads, coordinate care, and access timely information. Thus, strong HMS not only improves patient perception but also supports nursing workflow and reduces stress.
3. Support for Donabedian's Model in Southeast Asia: The results reaffirm the structure-process-outcome model in a new regional setting. This reinforces the model's global applicability and helps healthcare administrators and policymakers justify investing in system-level improvements.
4. Implications for Practice and Policy:
 - Hospitals should integrate nurse input when designing or evaluating HMS features.
 - Nursing managers should advocate for systems that align with clinical workflows and reduce service delays.
 - Policymakers may consider patient satisfaction data as a key metric in assessing hospital accreditation and funding distribution.

In conclusion, this study supports existing theory while contributing localized, actionable knowledge. Future research may explore the causal mechanisms behind this relationship or conduct longitudinal studies to assess how changes in system quality over time affect satisfaction and clinical outcomes.

CONCLUSIONS

This study concludes that the quality of hospital management systems plays a significant role in shaping patient satisfaction, particularly in a mid-sized healthcare setting like Mitra Sejati Hospital. By highlighting the positive relationship between structured administrative processes and patient experience, the findings emphasize the importance of system-level improvements in enhancing service quality. For nursing and healthcare professionals, the study reinforces the idea that efficient management frameworks not only support better care delivery but also influence how patients perceive and value their care. Strengthening hospital systems is therefore a strategic approach to achieving more patient-centered, responsive healthcare.

REFERENCES

1. Ahmad, A., Gundeti, M. S., Wilson, E., & Itrat, M. (2026). Status of evidence on efficacy and safety of Indian traditional medicine (Ayush) for COVID-19: A qualitative review and evidence map synthesis. *Systematic Reviews*. <https://doi.org/10.1186/s13643-026-03069-1>
2. Al-Faouri, I., & Al-Zu'bi, Z. (2021). The effect of hospital management practices on patient satisfaction. *Journal of Health Management*, 23(2), 221–230. <https://doi.org/10.1177/09720634211007057>
3. Charania, S., Bazzell, A. F., & Madsen, L. T. (2026). A guide to establishing an oncology urgent care clinic. *NEJM Catalyst Innovations in Care Delivery*. <https://doi.org/10.1056/CAT.25.0177>
4. Falke, C. M., Koolen, M. F. J., & Timmer, S. L. (2026). Perspectives of older patients on the complexity of medication use. *Journal of the American Geriatrics Society*. <https://doi.org/10.1111/jgs.70311>
5. Gu, L., Chen, L., & Ma, C. (2026). Application of digital technology in medical practice. *Frontiers in Public Health*. <https://www.frontiersin.org/articles/10.3389/fpubh.2026.1722648/full>

6. Iqbal, M., Modi, P., Sehgal, K., Costa, G., & Bhattacharya, G. (2026). Clinical presentations and treatment of baclofen toxicity and withdrawal: A systematic review. *CNS Drugs*. <https://doi.org/10.1007/s40263-025-01254-9>
7. Jacobs, M. A., McKaig, B. N., & Schmidt, S. (2026). Assessing racial bias within American Society of Anesthesiologists classification. *Journal of Surgical Research*. <https://www.sciencedirect.com/science/article/pii/S0022480425008534>
8. James, M. (2026). Integrating IoT and artificial intelligence for predictive healthcare analytics. *ResearchGate*. <https://www.researchgate.net/publication/399871187>
9. Jaber, F., Kassem, J., El Othman, R., & Tfayli, A. (2026). Preferred place of death in serious chronic illness: Single-center study in Lebanon. *Journal of Pain and Symptom Management*. [https://www.jpmsjournal.com/article/S0885-3924\(26\)00016-3/fulltext](https://www.jpmsjournal.com/article/S0885-3924(26)00016-3/fulltext)
10. Ma, J. E., Piscitello, G., Schell, J., Lyons, K., & Arnold, R. M. (2026). Core elements of goals of care initiatives across eight health systems. *Journal of Pain and Symptom Management*. <https://www.sciencedirect.com/science/article/pii/S0885392426000084>
11. Mazurek, M. (2026). Perioperative care, operating room efficiency, and surgical outcome improvement. *IntechOpen*. <https://www.intechopen.com/online-first/1230730>
12. Mohamad, K., Ramzi, N., Alain, T., & Charbel, G. (2026). Delay in inpatient admission at an emergency department in a private hospital in Beirut. *Internal and Emergency Medicine*. <https://doi.org/10.1007/s11739-026-04264-7>
13. Neumann, C., Schenk, A., & Schindler, E. (2026). Epidemiology, morbidity and mortality associated with anesthesia in early life: A subgroup analysis. *Pediatric Anesthesia*. <https://doi.org/10.1002/pan.70115>
14. Nishad, N., Hassall, J. H. A., & Corbett, G. (2026). Colonoscopy under pressure: Can AI bridge the quality gap in insourced practice? *Frontline Gastroenterology*. <https://fg.bmj.com/content/early/2026/01/21/flgastro-2025-103445.abstract>
15. Obeagu, E. I., & Parray, A. R. (2026). Beyond the hospital walls: Community-based approaches to leukemia management in older adults. *Annals of Medicine and Surgery*. https://journals.lww.com/annals-of-medicine-and-surgery/fulltext/9900/beyond_the_hospital_walls_community_based.4230.aspx
16. Sauhta, A., & Kaurav, H. (2026). Nanobiotechnology-driven ocular delivery of biologics using advanced nanocarriers. *AIJR Abstracts*. <https://abstracts.aijr.org/index.php/abs/article/view/196>
17. Susanti, Y. (2026). The relationship between family support and the level of distress in type 2 diabetes mellitus patients. *Journal of Mental Health Concerns*. <http://e-journal.iphorr.com/index.php/mhc/article/view/2115>
18. Utami, P., Harsono, H., & Kurniawan, D. (2022). Determinants of patient satisfaction in public hospitals in Indonesia. *Jurnal Administrasi Kesehatan Indonesia*, 10(1), 15–22. <https://doi.org/10.20473/jaki.v10i1.2022.15-22>
19. Xiaolan, H., & Guiying, Y. (2026). Precision medicine and personalized nursing in cardiovascular disease: Clinical applications. *Frontiers in Cardiovascular Medicine*. <https://www.frontiersin.org/journals/cardiovascular-medicine/articles/10.3389/fcvm.2026.1616059/full>
20. Zarei, A., Arab, M., Froushani, A. R., Rashidian, A., & Ghazi Tabatabaei, S. M. (2015). Service quality of private hospitals: The Iranian patients' perspective. *BMC Health Services Research*, 15(1), 1–7. <https://doi.org/10.1186/s12913-015-0765-9>