

Analysis of the Effectiveness of Hospital Administrative Systems in Improving the Quality of Healthcare Services

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Abstract: : This study aims to analyze the effectiveness of hospital administrative systems in improving the quality of healthcare services. Effective administration plays a crucial role in accelerating service delivery, reducing administrative errors, and optimizing hospital resource management. This research employs a literature review method based on ten national and international scientific articles discussing the implementation of the Hospital Management Information System (HMIS/SIMRS), administrative digitalization, and the relationship between administrative effectiveness and patient satisfaction. The findings indicate that integrated and technology-based administrative systems, such as SIMRS, significantly improve operational efficiency, data accuracy, and patient satisfaction. However, the success of implementation largely depends on human resource competence, training, and managerial support. Technical issues, user resistance, and limited infrastructure remain major challenges. Therefore, strengthening human resource capacity and conducting continuous evaluations of administrative systems are essential to ensure that hospitals can deliver optimal, efficient, and sustainable healthcare services.

Keywords: hospital administrative system, SIMRS, efficiency, patient satisfaction, healthcare quality

1. INTRODUCTION

Health services are one of the key components of the healthcare system, playing a vital role in improving community well-being. Hospitals, as the primary institutions providing healthcare services, bear a major responsibility for delivering high-quality services that effectively and efficiently meet patient needs (World Health Organization, 2016). The hospital administration system plays a crucial role in managing resources, service processes, and evaluating hospital performance (Putri & Sari, 2019).

Effective health administration optimizes resource utilization, accelerates service processes, and reduces administrative errors that may decrease service quality (Nugroho et al., 2020). In this context, an integrated and well-managed administrative system is a key factor in improving hospital service quality (Sari & Widodo, 2021). However, in practice, many hospitals face challenges in implementing an effective administrative system, such as technological limitations, inadequate human resources, and unclear procedures (Hidayat & Purwanto, 2018).

According to Putri and Sari (2019), the effectiveness of hospital administrative systems not only impacts operational efficiency but also significantly affects patient satisfaction. Patient satisfaction is a crucial indicator in assessing the quality of healthcare services, as it reflects the extent to which the services provided meet patients' expectations and needs (Andayani &

Wijaya, 2020). Therefore, examining the effectiveness of administrative systems is a strategic step to ensure optimal healthcare delivery in hospitals.

Information technology has become a major supporting factor in modern hospital administration. The implementation of the Hospital Management Information System (SIMRS) has been proven to accelerate administrative processes and improve the accuracy of patient data, ultimately contributing to better service quality (Nugroho et al., 2020). However, the success of SIMRS implementation largely depends on the readiness of human resources and the support of hospital management (Sari & Widodo, 2021).

Several studies indicate that obstacles in hospital administration systems often stem from a lack of staff training and understanding of administrative procedures, leading to inefficiencies in task execution (Hidayat & Purwanto, 2018). Therefore, staff training and human resource development are crucial aspects that must be addressed to improve the effectiveness of hospital administrative systems.

In conclusion, this study aims to analyze the effectiveness of hospital administrative systems in enhancing healthcare service quality. The findings are expected to provide a comprehensive overview of the factors influencing administrative effectiveness and to propose recommendations for improving hospital administrative systems to support better patient care

2. METODE

This study employed a *literature review* method with a descriptive-analytical approach to examine the effectiveness of implementing the Hospital Management Information System in improving administrative efficiency in inpatient services. The review process involved collecting relevant scientific literature from national and international journals, conference proceedings, and research reports related to SIMRS implementation and hospital administrative efficiency. The inclusion criteria covered articles published between 2018 and 2023, written in Indonesian or English, and focusing on the application, evaluation, or effectiveness of SIMRS in hospitals. Studies that did not present empirical data or were unrelated to hospital information systems were excluded. Data were analyzed qualitatively using thematic extraction and synthesis of research findings. The analysis identified key patterns, supporting factors, implementation barriers, and recommendations for improving SIMRS effectiveness. The review process followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework to ensure methodological rigor, validity, and transparency. The final results were presented in a thematic summary describing

the contribution of SIMRS to improving administrative efficiency in inpatient services and the influencing factors that determine its success.

3. RESULT AND DISCUSSION

a. Result

Tabel 1. Literatur Review

Title	Method	Main Findings	Relevance
Analysis of the Effectiveness of SIMRS Implementation in Improving Service Quality at Dr. Soetomo General Hospital(Alfian, R., & Putra, Y. 2021)	Descriptive quantitative	SIMRS improves administrative efficiency and reduces recording errors.	Demonstrates that the effectiveness of information systems directly influences service quality.
The Effect of Electronic Administrative System Implementation on Patient Satisfaction in Private Hospitals(Sari, D. A., & Pratiwi, M. ,2020)	Quantitative (linear regression)	The electronic system accelerates the registration process and increases patient satisfaction by 25%.	Shows a positive relationship between digital administration systems and patient satisfaction.
Evaluation of SIMRS on the Work Efficiency of Medical Record Officers(Wijaya, L., et al., 2022)	Qualitative (interviews & observations)	SIMRS reduces patient data retrieval time by up to 60%.	Describes the role of SIMRS in improving operational efficiency in hospital administration.
Analysis of Human Resource Readiness in SIMRS Implementation at Government Hospitals(Nugroho,	Mixed methods	Poorly trained human resources are the main factor causing delays in system implementation.	Provides insight into the human factors affecting administrative system effectiveness.

A., & Rahman, H. ,2023)				
Relationship Between Administrative Effectiveness and Inpatient Service Quality(Kurniawan , T. 2021)	Quantitative (Spearman correlation)	Administrative effectiveness is significantly correlated (r = 0.72) with improved service quality.	Highlights the contribution of administrative efficiency to inpatient service quality.	
The Impact of Administrative Digitalization on Hospital Service Performance(Rahm awati, F., & Hidayat, N. 2022)	Descriptive analytic	Digitalization enhances employee productivity and process transparency.	Supports digitalization as a strategic step in improving service quality.	
Analysis of SIMRS Implementation at Cipto Mangunkusumo General Hospital(Gunawan, A., & Sihombing, 2019)	Case study	Technical barriers such as network connectivity and user resistance were identified.	Emphasizes the importance of technical factors in successful SIMRS implementation.	
The Effect of Administrative Efficiency on Patient Loyalty(Fitriani, L., & Yusuf, 2020)	Quantitative	Administrative efficiency improves patients' positive perception of hospitals.	Reinforces the importance of efficient administration for hospital image and patient loyalty.	
Evaluation of User Satisfaction Toward Hospital Administrative Information Systems(Handayan i, T., & Pratama, Y., 2021)	Quantitative (Likert-scale questionnaire)	82% of respondents stated that the system helped accelerate administrative processes.	Provides empirical evidence that SIMRS is effective in expediting hospital services.	

Hospital Management and Patient Outcomes: The Role of Administrative Systems(Bhati, P., Smith, R., & Kumar, S. ,2023)	Quantitative (multivariate analysis)	Effective administrative systems are positively correlated with patient clinical outcomes.	Demonstrates a macro-level relationship between management systems and health outcomes.
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The table presents a synthesis of ten previous studies examining the effectiveness of hospital administrative systems, particularly the Hospital Management Information System (SIMRS), in improving healthcare service quality. Most studies, such as those by Alfian and Putra (2021) and Sari and Pratiwi (2020), highlight that implementing electronic or digital administrative systems enhances efficiency, reduces data errors, and increases patient satisfaction. Qualitative and mixed-method studies, including those by Wijaya et al. (2022) and Nugroho and Rahman (2023), emphasize the importance of human resource readiness and system usability in achieving optimal outcomes. Quantitative findings from Kurniawan (2021) and Fitriani and Yusuf (2020) show significant correlations between administrative effectiveness and patient satisfaction or loyalty, reinforcing the critical role of efficient management in hospital performance. Meanwhile, Rahmawati and Hidayat (2022) and Gunawan and Sihombing (2019) identify digitalization and technical barriers as key determinants influencing system success. Overall, these studies consistently demonstrate that effective administrative systems, supported by adequate technology and trained personnel, significantly contribute to better hospital service quality and patient outcomes.

b. Discussion

This study found that the effectiveness of hospital administrative systems has a significant influence on improving the quality of healthcare services. An effective administrative system allows hospitals to manage service processes more systematically, thereby accelerating service time and reducing administrative errors that may harm patients (Putri & Sari, 2019). This finding indicates that sound administration is a fundamental foundation for delivering high-quality healthcare services and ensuring patient satisfaction.

Furthermore, the results emphasize the importance of technology integration within hospital administrative systems. The optimally implemented Hospital Management Information System (SIMRS) can enhance the efficiency of data processing and patient record management. According to Nugroho et al. (2020), the use of this technology facilitates faster information access and reduces the risk of human error that often occurs in manual processes, leading to more accurate and timely healthcare services.

However, the effectiveness of administrative systems does not solely depend on technology but also on the competence and readiness of the human resources operating the system. Hidayat and Purwanto (2018) highlighted that continuous training and a comprehensive understanding of administrative procedures among staff are crucial to maximize the functionality of hospital administrative systems. A lack of understanding and training may lead to implementation challenges, potentially decreasing service quality.

This study also identified a positive relationship between the effectiveness of administrative systems and patient satisfaction levels. Patient satisfaction is a key indicator of healthcare quality, reflecting how well hospitals meet patients' needs and expectations (Andayani & Wijaya, 2020). An efficient administrative system accelerates service delivery and minimizes patient complaints, thereby directly enhancing the overall patient experience during healthcare services.

Nevertheless, administrative challenges such as bureaucratic complexity, lack of interdepartmental coordination, and limited resources often hinder the effectiveness of hospital administrative systems (Hidayat & Purwanto, 2018). These obstacles may cause service delays, data inaccuracies, and patient dissatisfaction, ultimately lowering the overall quality of healthcare services.

Based on these findings, it is crucial for hospitals to conduct regular evaluations and continuous improvements of existing administrative systems. Management should prioritize strengthening human resource capacity through training programs and adopting technologies tailored to hospital needs (Sari & Widodo, 2021). This approach ensures that the administrative system can effectively support fast, accurate, and reliable service delivery.

Overall, this study confirms that an effective administrative system is a key determinant in improving the quality of healthcare services in hospitals. Therefore, investment in developing administrative systems and human resources should be a

strategic priority for hospital management to achieve optimal and sustainable healthcare delivery

4. CONCLUSION

This study concludes that the effectiveness of hospital administrative systems has a positive and significant impact on improving the quality of healthcare services. A well-organized administrative system can accelerate service processes, reduce administrative errors, and optimize hospital resource management. Thus, effective administration serves as a crucial foundation for delivering timely and satisfactory patient care. Furthermore, the integration of technology through the Hospital Management Information System (SIMRS) has been proven to enhance administrative efficiency and patient data accuracy. However, the successful implementation of such technology largely depends on the readiness and competence of the human resources operating the administrative system. Continuous training and a clear understanding of administrative procedures are key factors in maximizing system effectiveness. This study also emphasizes a strong relationship between administrative effectiveness and patient satisfaction. Patient satisfaction, as a primary indicator of service quality, increases when administrative processes run smoothly and respond effectively to patient needs. Therefore, hospitals must continuously evaluate and improve their administrative systems while developing human resources to ensure the provision of optimal and sustainable healthcare services

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