

ELECTRONIC MEDICAL RECORD (EMR) IMPLEMENTATION AS A FACTOR ASSOCIATED WITH NURSES' JOB SATISFACTION AT SAKINAH ISLAMIC HOSPITAL, MOJOKERTO REGENCY

Virna Tasyah Alif Fiah, Windu Santoso, Duwi Basuki

Bina Sehat PPNI University, Mojokerto, Indonesia

Corresponding Author: virnaatasyah@gmail.com

ABSTRACT

Digital health transformation through Electronic Medical Record (EMR) has the potential to improve healthcare service effectiveness and influence the work experience of healthcare professionals, particularly nurses. This study aimed to analyze the relationship between EMR implementation and nurses' job satisfaction at Sakinah Islamic Hospital, Mojokerto Regency. This study employed a quantitative analytical design with a cross-sectional approach. A total of 39 nurses were selected using a total sampling technique. Data were collected using EMR implementation and job satisfaction questionnaires and analyzed using the Spearman Rank test. The results showed that all respondents reported good EMR implementation (100%), and the majority of nurses reported being satisfied with their jobs (89.7%). A significant relationship was found between EMR implementation and nurses' job satisfaction ($p = 0.023$; $r = 0.273$). Optimal EMR implementation has the potential to improve nurses' job satisfaction by enhancing work efficiency and supporting healthcare service processes.

Keyword: *EMR Implementation, Nurses, Satisfaction*

INTRODUCTION

Digital transformation in healthcare has become an important strategy for improving service quality, efficiency, and patient safety. One form of this transformation is the implementation of Electronic Medical Record (EMR), an electronic health record system that enables faster, more accurate, secure, and integrated recording, storage, and access to patient information compared with conventional medical record systems (Permenkes, 2022). For nurses as the primary users involved in healthcare documentation, EMR implementation not only transforms work processes but also influences the effectiveness of nursing care delivery, the quality of documentation, and nurses' daily work experiences in providing patient care (Santoso, 2025).

The success of EMR implementation is not only measured by technological aspects but also by its impact on healthcare professionals as the users of the system (Paramesthi, 2024). A user-friendly system can improve documentation efficiency, accelerate access to patient information, reduce administrative workload, and support interprofessional healthcare coordination. Conversely, technical issues and system complexity may reduce work comfort and hinder healthcare delivery processes. These conditions may influence nurses' job satisfaction, which is an important indicator in enhancing motivation, productivity, organizational commitment, and the overall quality of hospital services (Rian Saputro et al., 2025).

Several studies have reported inconsistent findings regarding the relationship between EMR implementation and healthcare professionals' job satisfaction (Juliansyah, 2024). A study in China reported relatively high levels of EMR user satisfaction, whereas studies in Saudi Arabia and Indonesia found that dissatisfaction still occurred due to system-related issues and implementation processes. These differences in findings indicate that the

success of EMR implementation is influenced by various factors, including system quality, organizational support, user characteristics, and human resource readiness in adapting to digital transformation. However, studies specifically examining the relationship between EMR implementation and nurses' job satisfaction in private hospitals at the regency level remain limited (Prawira et al., 2025).

A preliminary study at Sakinah Islamic Hospital, Mojokerto Regency, showed that some nurses still experienced difficulties in using EMR due to system disruptions, while others perceived that EMR could improve documentation efficiency, facilitate access to patient information, and support nursing care delivery. These differences in perceptions indicate that EMR implementation may influence nurses' job satisfaction and therefore requires further investigation.

This study aimed to analyze the relationship between Electronic Medical Record (EMR) implementation and nurses' job satisfaction at Sakinah Islamic Hospital, Mojokerto Regency. The findings of this study are expected to serve as a basis for hospital management in optimizing EMR implementation through improving system quality, providing user training, and strengthening organizational support to enhance nurses' job satisfaction, healthcare service effectiveness, and the continuous improvement of healthcare quality.

METHOD

This study employed a quantitative analytical design with a cross-sectional approach to analyze the relationship between Electronic Medical Record (EMR) implementation and nurses' job satisfaction. The study was conducted in April 2026 at Sakinah Islamic Hospital, Mojokerto Regency. The study population consisted of all nurses working in the Bonang, Walisongo, and Muria inpatient wards, with a total of 39 nurses. The sampling technique used was total sampling, in which the entire population was included as research respondents.

Data were collected using two instruments: an Electronic Medical Record (EMR) implementation questionnaire and a nurses' job satisfaction questionnaire. Data collection was conducted through direct distribution of questionnaires after respondents received an explanation regarding the objectives, benefits, and procedures of the study and provided their willingness to participate by signing an informed consent form. The study was conducted by applying research ethical principles, including respect for persons, beneficence, non-maleficence, justice, anonymity, and confidentiality.

Data analysis was performed using IBM SPSS Statistics. Univariate analysis was conducted to describe respondents' characteristics and the distribution of EMR implementation and nurses' job satisfaction variables. Furthermore, the relationship between the two variables was analyzed using the Spearman Rank test because the data were measured on an ordinal scale. A $p\text{-value} < 0.05$ was established as the threshold for statistical significance in hypothesis testing.

FINDINGS AND DISCUSSION

RESEARCH RESULTS

Table 1. Characteristics of Respondents

1	Umur	Frekuensi	Presentase (%)
	Remaja (20-25 th)	14	35,9
	Dewasa (26-40 th)	22	56,4
	Lansia (41-50 th)	3	7,7
2	Jenis kelamin		
	Laki-laki	9	23,1
	Perempuan	30	76,9
3	Pendidikan Terakhir		
	D3	6	15,4
	S1/ Ners	33	84,6
4	Lama kerja		
	<10 tahun	36	92,3
	≥10 tahun	3	7,7
Total		39	100

The characteristics of respondents are presented in Table 1. A total of 39 nurses participated in this study. The majority of respondents were aged 26–40 years, with 22 nurses (56.4%), were female, with 30 nurses (76.9%), had a bachelor's degree in nursing/professional nurse education (S1/Ners), with 33 nurses (84.6%), and had a work experience of less than 10 years, with 36 nurses (92.3%).

Table 2. Distribution of EMR Implementation

Penerapan EMR	Frekuensi	Presentase (%)
Baik	39	100
Kurang	0	0
Total	39	100.0

Based on Table 2, all respondents demonstrated good implementation of Electronic Medical Record (EMR), with a total of 39 respondents (100%).

Table 3. Distribution of Nurses' Job Satisfaction

Kepuasan kerja	Frekuensi	Presentase (%)
Puas	35	89,7
Tidak Puas	4	10,3
Total	39	100

Based on Table 3, the majority of respondents had a satisfactory level of job satisfaction, with 35 respondents (89.7%) categorized as satisfied, while 4 respondents (10.3%) were categorized as dissatisfied.

Table 4. Cross-tabulation of EMR Implementation and Nurses' Job Satisfaction

No	Penerapan EMR	Kepuasan kerja perawat				Total	
		Tidak puas		Puas			
		f(n)	p(%)	f(n)	p(%)	Jumlah	%
1	Baik	4	10,3	35	89,7	39	100
2	Kurang	0	0	0	0	0	0
Total		4	10,3	35	89,7	39	100

Based on the cross-tabulation, all respondents were categorized as having good EMR implementation. Among these respondents, 35 nurses (89.7%) had a satisfied level of job satisfaction, while 4 nurses (10.3%) were categorized as dissatisfied.

Table 5. Relationship between EMR Implementation and Nurses' Job Satisfaction

Variabel	N	r	P-value
Penerapan EMR	39	0.273	0,023.
Kepuasan Kerja	39		

The Spearman Rank test results showed a significant relationship between Electronic Medical Record (EMR) implementation and nurses' job satisfaction ($p = 0.023$). The correlation coefficient value of $r = 0.273$ indicated a positive relationship with a low correlation strength, suggesting that better EMR implementation was associated with higher levels of nurses' job satisfaction.

DISCUSSION

This study demonstrated a significant relationship between Electronic Medical Record (EMR) implementation and nurses' job satisfaction at Sakinah Islamic Hospital, Mojokerto Regency ($p = 0.023$). The correlation coefficient value of $r = 0.273$ indicated a positive relationship with a low correlation strength, suggesting that better EMR implementation was associated with higher levels of nurses' job satisfaction. Although the observed relationship did not demonstrate a strong correlation, these findings indicate that the implementation of health information systems still contributes to nurses' work experiences. These findings are consistent with the study by (Marlina et al., 2026), which reported a significant relationship between electronic medical record utilization and healthcare professionals' job satisfaction. Similar findings were also reported by (Simanjuntak, 2025) and (Santoso, 2025), indicating that well-implemented EMR systems can improve user satisfaction through easier access to information, more efficient documentation processes, and support for more effective healthcare service delivery.

EMR implementation can contribute to improving nurses' job satisfaction because the system helps optimize work processes, particularly in patient documentation and information management. A user-friendly system enables nurses to perform nursing care documentation more effectively, allowing them to allocate more time for direct patient care. Conversely, challenges such as system disruptions, complex application interfaces, limited supporting facilities, and inadequate training may hinder EMR utilization and reduce users' work comfort. These conditions are consistent with the DeLone and McLean model, which explains that system quality and information quality play important roles in determining user satisfaction as an indicator of information system success. Furthermore, the Technology

Acceptance Model (TAM) explains that perceived ease of use and perceived usefulness are key factors influencing users' acceptance of new technology (Wicaksono, 2022). (Prawira et al., 2025) demonstrated that nurses' perceptions of EMR usability and benefits were associated with system acceptance, while (Yunita et al., 2025) emphasized that organizational support and user training are essential factors in successful EMR implementation. This finding is further supported by a systematic review by (Paramesthi, 2024), which stated that EMR success is influenced by a combination of technological aspects, organizational readiness, and user competency.

The low correlation value observed in this study indicates that nurses' job satisfaction is not solely determined by EMR implementation but is also influenced by various other multidimensional factors. Factors such as workload, work environment, leadership style, reward systems, interpersonal relationships, and career development opportunities may contribute to nurses' job satisfaction levels. This finding is consistent with (Hudays et al., 2024), who stated that nurses' job satisfaction is influenced by the interaction of various organizational and workplace factors. (Rizany et al., 2022) also explained that management support, working conditions, and reward systems play important roles in shaping nursing professionals' job satisfaction. According to Herzberg's Two-Factor Theory, job satisfaction is influenced by motivator factors, such as achievement and personal growth, as well as hygiene factors, including organizational policies, supervision, working conditions, and supporting facilities (Zhang & Gandham, 2025). Therefore, EMR implementation can serve as one supporting factor that enhances work comfort; however, achieving optimal job satisfaction requires a more comprehensive organizational approach.

The findings of this study provide implications for hospital management in developing strategies to optimize EMR implementation. Although most respondents perceived EMR implementation as good, some nurses were still found to have suboptimal levels of job satisfaction (Nortajulu, 2020). This indicates that the success of EMR does not solely depend on system availability but also on continuous system management, user readiness, and organizational support (Anindita, 2025). Therefore, hospitals need to conduct regular evaluations of EMR performance, improve the stability of technological infrastructure, and provide continuous training to enhance nurses' digital competencies. Furthermore, involving nurses as end users in the evaluation and development processes is essential to ensure that EMR features align with clinical service needs. (Ariyanto et al., 2025) stated that successful EMR implementation is influenced by system quality, organizational readiness, and user involvement throughout the implementation process.

This study has several limitations. The cross-sectional design used in this study only describes the relationship between EMR implementation and nurses' job satisfaction at a single point of observation and therefore cannot establish causal relationships. In addition, the study was conducted in only one hospital with a limited number of respondents, meaning that the findings should be interpreted cautiously when applied to other healthcare facilities. The low correlation value also indicates the presence of other factors that were not analyzed in this study, such as workload, organizational culture, leadership, and management support. Therefore, future studies are recommended to employ longitudinal designs or broader analytical approaches with larger sample sizes and to include both individual and organizational variables to obtain a more comprehensive understanding of factors influencing nurses' job satisfaction in EMR implementation.

CONCLUSION

This study demonstrated a significant relationship between Electronic Medical Record (EMR) implementation and nurses' job satisfaction at Sakinah Islamic Hospital, Mojokerto Regency ($p = 0.023$). The relationship was positive with a low correlation strength ($r = 0.273$), indicating that better EMR implementation was associated with higher levels of nurses' job satisfaction. EMR implementation contributes to supporting documentation efficiency, facilitating access to patient information, and optimizing nurses' work processes. However, the low strength of the relationship suggests that nurses' job satisfaction is also influenced by other factors, such as work environment, organizational support, workload, and individual factors. Therefore, optimizing EMR implementation should be accompanied by improvements in system quality, continuous training, and management support to enhance nurses' work experiences and job satisfaction.

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