



THE RELATIONSHIP OF EMR (ELECTRONIC MEDICAL RECORD) DOCUMENTATION PERFORMANCE WITH PATIENT SATISFACTION

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ABSTRACT

Technological developments have an impact on developments in the world of health, especially information technology in hospitals. The use of EMR makes medical records more orderly and improves health services that are faster, more precise, valuable and accountable. User usage and satisfaction will influence individual impact. Methods: An analysis of the relationship between EMR documentation and nurse satisfaction is needed. This study used a cross-sectional, The sampling technique in this research used purposive sampling correlational design with a sample of 80 patient at RSUD Dr. Soetomo. Research data was collected through questionnaires from the EMR documentation performance variables and nurse satisfaction. The results of the validity test of the EMR Documentation Performance instrument obtained a Pearson correlation value in the range 0.590-0.926 > r table 0.514 and the results of the reliability test in this research showed a Cronbach's Alpha value of 0.966 so it is reliable. results of the validity and reliability of the patient satisfaction instrument Cronbach α reliability coefficient was high, ranging from 0.900 to 0.940. Research data was processed using the Spearman rho test with a p value <0.05. Results: The results of the study showed that EMR documentation performance was related to patient satisfaction (0.009). Discussion: Good electronic medical record documentation performance can increase patient satisfaction.

Keywords: documentation performance; medical record; patient satisfaction

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INTRODUCTION

Technological developments have an impact on developments in the world of health, especially hospital digital information technology related to medical records. Information in hospitals is important for providing, coordinating and integrating hospital services (Delgado et al., 2018) . The benefits of EMR management are making media records more orderly and improving health services by managing medical records that are fast, precise, valuable and accountable (Atwa & Wahed, 2019) . Research in Malaysia on 321 patients showed that the level of patient satisfaction in hospitals that had implemented EMR was higher than the level of patient satisfaction in hospitals with PMR (Papaer Medical Record) (Ibrahim et al., 2022). User satisfaction is the response and feedback that users receive after using the EMR information system. Previous research results showed that 97.5% were satisfied with the use of EMR in outpatients (Kutney-Lee et al., 2019) .

The introduction of EMR initiated a significant change in healthcare compared to PMR. Benefits include saving time, preventing lost paperwork, and increasing patient participation in their care. EMR is considered an efficient system to improve patient engagement and communication with healthcare professionals. Specifically, EMR improves patient compliance and satisfaction with the healthcare system (Wali et al., 2020a) . The use of EMR can increase the completeness and readiness of the application in the process of filling out

medical records for patients. The use of EMR can minimize the factors of incompleteness and inaccuracy as well as the illegibility of doctors' handwriting (Kutney-Lee et al., 2021) . User satisfaction can be caused by satisfaction with the quality of information, human resources, technology, usefulness, ease of access, flexibility, amount of use. As several studies have explained, there is an influence of human resources and technology on user satisfaction (Tajirian et al., 2020) . Satisfaction is a determining factor in the benefits felt by users and has a positive effect on overall benefits (Linn et al., 2018) . User satisfaction is influenced by the quality of medical record information, accuracy, and presentation of information in the EMR application (Kutney-Lee et al., 2021) . User usage and satisfaction will influence individual impact and organizational impact.

The quality of EMR is seen from how much the system can support the tasks or decisions taken by users in carrying out their daily work. EMR quality also influences user satisfaction with the successful implementation and running of the EMR program system (Kaipio et al., 2020) . Effective and efficient use of EMR applications will increase user satisfaction, namely health workers and patients, with the services provided by hospitals (Kutney-Lee et al., 2021) . The use of EMR is an important aspect to be implemented in the hospital service system. Even though there are many benefits from the EMR application, there are still several evaluations of EMR use such as incomplete data and difficulty in accessing the EMR application. The quality of the EMR application can have an impact on user satisfaction, namely health workers and patients. This is what makes the author interested in analyzing the relationship between EMR documentation and patient satisfaction. The aim of this research to Analyze the relationship between EMR documentation performance and patient satisfaction at RSUD Dr. Soetomo Surabaya.

METHOD

The design of this research is Cross-Sectional Correlation which correlates EMR documentation performance with patient satisfaction. The population of this study were 60 nurses and 80 patients at RSUD Dr. Soetomo Surabaya. This research uses purposive sampling technique to determine the sample used. Research data was collected through an EMR documentation performance questionnaire instrument taken from (Nuryati, 2024) which was derived from theory (Nursalam, 2020) with a correlation r value of 0.514 and a Cronbach's alpha value of 0.966. The patient satisfaction instrument uses the Patient Satisfaction With Nursing Care Quality Questionnaire (PSNCQQ) questionnaire which comes from the Patient Judgment of Hospital Quality (PJHQ) questionnaire with a Cronbach's alpha value of 0.90-0.94. Data analysis in this study used the Spearman Rho Test . This research was approved by the Health Research Ethics Committee of RSUD Dr. Soetomo Surabaya with letter number: 0967/KEPK/IV/2024.

RESULTS

Table 1 shows that most of the patient satisfaction is aged 46-55 years (26.25%), female (57.5%), married (73.75%), marital status is woman (57.5%), with an address outside Surabaya (63.7%). %, and have a high school education (47.5%).

From table 2 it is found that the majority of good EMR documentation performance has satisfied patient satisfaction (80%). Analysis of the relationship using the Spearman rho test obtained a *Sig value* $p=0.009$, which means there is a correlation between patient satisfaction and EMR documentation performance. *The Correlation Coefficient* value is 0.334, which means there is a sufficient relationship between documentation performance and EMR patient satisfaction at RSUD dr. Soetomo Surabaya.

Table 1.
Characteristic of Respondent (Patients)

Characteristics of Respondent Data	Indicator	f	%
Age	17-25 Years	16	20
	26-35 Years	15	18.75
	36-45 Years	16	20
	46-55 Years	21	26.25
	56-65 Years	12	15
Gender	Woman	46	57.5
	Man	34	42.5
Marital status	Marry	59	73.75
	Single	18	22.5
	Widow or widower	3	3.75
Address	Surabaya	29	36.3
	Outside Surabaya	51	63.7
Education	Junior High School	17	21.25
	Senior High School	38	47.5
	S1	25	31.25

Table 2.
The Relationship of Emr (Electronic Medical Record) Documentation Performance With Patient Satisfaction

Patient Satisfaction	EMR Documentation Performance				Total		Spearmen rho	
	Good		Not enough		Σ	%	Sig.	Correlation Coefficient
	f	%	f	%				
Less satisfied	4	6,7	3	5	7	11.7	0.009	0.334
Satisfied	48	80	3	5	51	85		
Very satisfied	2	3.3	0	0	2	3.3		

DISCUSSION

The implementation of housing management and documentation information systems, particularly through Electronic Health Records (HER), Electronic Medical Records (EMR), Nursing Management Information Systems (SIMKEP), and SIDAK provides a number of significant benefits in the health sector. Apart from that, research from Salim et al., (2022) stated that the implementation of outpatient electronic medical records at RSU Queen Latifa Yogyakarta was in the good category for all variables (user satisfaction, usefulness, ease of use, quality of information, performance expectations, officer attitude). Electronic medical record documentation is the right solution for the documentation process. Computerized documentation is an alternative solution to save time in health services (Erawantini, F., Nugroho, E., Sanjaya, G. Y., & Hariyanto, S., 2013). Apart from that, the use of EMR provides administrative benefits, ease of accessing and transferring patient information, time efficiency, cost savings and patient safety which are indicators for the 2018 SNARS assessment in this connection regarding information and medical record management standards (Koten et al., 2020).

The results of data analysis show a sufficient relationship between patient satisfaction and EMR documentation performance at RSUD dr. Soetomo Surabaya. The research results obtained show that the majority of good EMR documentation performance has satisfied patients. In line with research by Wali et al (2020b) which states that patient satisfaction during clinical consultations and overall satisfaction with various health center services increases with the implementation of EMR. Other research states that the use of EMR

significantly increases the efficiency of hospital service processes which causes patient waiting times to decrease thereby increasing patient satisfaction (Rismawan & Renaningtyas, 2024) .

Electronic Medical Record is a system that contains the patient's health and disease history, diagnostic test results, other medical data and integrated treatment cost information (Astika, 2020) . Integrated documentation in information systems has a central role in improving the quality of evidence-based services and patient safety. Documentation management and information systems play an important role in supporting orderly administration and improving patient-focused health services (Rahmatin et al., 2024) . Apart from time, there are several benefits from using EMR for patients including: patients get better care (use of an electronic medical record system can improve the quality of care and patient safety), EMR data is easy for patients to understand (easy to understand EMR data allows patients to make decisions based on information about upcoming operations, procedures, and other things), and patient data is much safer if stored in a digital system, this can increase patient satisfaction (Hidayat, 2021) .

Patient satisfaction is one of the most basic assessments of the effectiveness and quality of service, this is defined by patient opinions based on nursing services from nursing staff working in hospitals (Maria et al., 2019) . Patient satisfaction is caused by the quality of information, human resources, technology, usefulness, ease of access, flexibility and amount of use (Salim et al., 2022) . Patient satisfaction will have an impact on repeated use of hospital facilities or become the patient's first choice for requesting medical assistance (Dora et al., 2019) . Researchers assume that the use of electronic medical records facilitates the performance of health workers, making the service process efficient and patient waiting times faster so that patients feel satisfied. This assumption is also supported by research results which state that the majority of EMR documentation performance has good patient satisfaction.

CONCLUSION

The results of the analysis of the relationship between EMR documentation performance and patient satisfaction are that there is a sufficient relationship between patient satisfaction and EMR documentation performance at RSUD dr. Soetomo Surabaya. It is hoped that the research results can consider and improve the quality of electronic medical records related to ease of access, clarity of design and minimizing the level of website errors and for future researchers it is hoped that in subsequent research the factors for each variable that influence the performance of electronic medical record documentation will be further developed in order to obtain various literature aimed at improving the performance of electronic medical record documentation .

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