

Relationship Between Staff Motivation and Completeness of Electronic Medical Record Filling at RSD Idaman Kota Banjarbaru

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ABSTRACT

Introduction: Completeness in filling Electronic Medical Records (EMRs) is an important indicator for ensuring service quality, patient safety, and smooth hospital administration. However, incomplete EMR filling remains a problem in various healthcare facilities. Preliminary data from the outpatient department of RSD Idaman Kota Banjarbaru for July–October 2025 showed an EMR completion rate of 60%–66%, while unfilled data reached 31%–36%. This study aimed to determine the relationship between staff motivation and the completeness of electronic medical record filling in the outpatient department of RSD Idaman Kota Banjarbaru.

Methods: This study used a quantitative method with a cross-sectional approach. The sample consisted of 82 healthcare workers selected using purposive sampling from a population of 102 people. Data were collected using a motivation questionnaire and an EMR completeness checklist, then analyzed using the Chi-Square test.

Results: The results showed that most respondents had good work motivation, while the completeness of EMR filling was in the moderate category. The Chi-Square test showed no significant relationship between staff motivation and the completeness of electronic medical record filling ($p = 0.837$; correlation coefficient = 0.023).

Conclusion: It was concluded that staff motivation was not significantly associated with EMR filling completeness. Hospitals need to continue improving supervision, monitoring, evaluation, and support for staff to improve the quality of electronic medical record documentation.

Keywords: *Staff Motivation; Electronic Medical Records; Filling Completeness*

Introduction

Electronic Medical Records (EMRs) are systems that use electronic and digital technology to store medical record information. Timely, accurate, and complete medical record documentation is essential to ensure healthcare service quality, patient satisfaction, and support medical decision-making. Incomplete electronic medical record documentation can affect patient safety and hospital reputation (Jaya and Kosasih 2024).

International studies indicate that incomplete Electronic Medical Record documentation remains a significant problem in various public hospitals across countries. A study in Saudi Arabia reported documentation incompleteness rates ranging from 25–35%, including 28% for demographic data and up to 35% for diagnoses and medical procedures that were not completed. The main factors influencing this condition were insufficient healthcare worker training at 40% and high workload at 30% (Tsiampalis and Panagiotakos 2023). Meanwhile, studies in the United States and other Western countries showed an average EMR incompleteness rate of 32.7%, with the highest proportion occurring in patients' clinical histories at 41% and the lowest in patient identification at 18%. These problems were mainly caused by software usability aspects and healthcare workers' workload pressure (Gurupur et al. 2025). The deficiencies primarily occurred in patient progress notes and follow-up plans. Overall, these findings confirm that EMR incompleteness is a global issue influenced by various contextual factors, requiring specific interventions based on local conditions to improve the quality and completeness of electronic medical record documentation.

Based on the results of a preliminary study at RSD Idaman Kota Banjarbaru concerning incomplete SOAP electronic medical record filling in the outpatient department from July to October 2025, the data were as follows: in July, the completion rate was 60%, incomplete 4%, and unfilled 36%; in August, completion was 61%, incomplete 4%, and unfilled 35%; in September, completion was 63%, incomplete 4%, and unfilled 33%; and in October, completion was 66%, incomplete 3%, and unfilled 31%. These data indicate an increasing trend in electronic medical record completion from month to month. Nevertheless, the proportion of medical records that were unfilled remained relatively high, requiring evaluation and improvement efforts in the

implementation of electronic medical record filling to improve service quality and the completeness of medical documentation.

Incomplete medical record filling has a significant impact on healthcare services, both internally and externally. Internally, incomplete medical records hinder service quality evaluation, planning, management decision-making, and the preparation of reports that are crucial for improving service quality. Externally, this condition can disrupt disease classification and coding, the preparation of evidence for legal and police purposes, and the timely submission of insurance claims, affecting the hospital's administrative and financial aspects. In addition, incomplete medical records can disadvantage patients because they may hinder the fulfillment of patients' rights to optimal healthcare services (Azis et al. 2022).

The causes of incomplete electronic medical record filling are influenced by various factors, both from healthcare workers and the service system. From the healthcare worker perspective, a high workload limits the time available for complete documentation, causing records to be delayed or not completed comprehensively. In addition, low motivation and negative attitudes toward the importance of documentation also contribute to noncompliance with complete data entry, particularly when documentation is not considered an important part of clinical care (Dewi et al., 2025). In terms of awareness, healthcare workers' lack of awareness of procedures and the importance of electronic medical records is also a major cause of incomplete data. System factors also play a role, such as limited resources, insufficient dissemination of standard operating procedures (SOPs), and minimal monitoring and evaluation, which cause the filling process to be inadequately controlled (Novana et al., 2024).

Based on previous studies, Kassiuw and Hidayat (2024) reported that healthcare worker motivation was significantly associated with the implementation of Electronic Medical Records (EMRs) and service efficiency. However, the study did not analyze the relationship between motivation and EMR filling completeness (Kassiuw and Hidayat 2024). Meanwhile, Michaela et al. (2024) examined the relationship between specialist physicians' work motivation and inpatient medical record completeness and found that work motivation was not significantly associated with medical record completeness (Michaela et al. 2024).

Based on these two studies, a research gap remains because few studies have analyzed the relationship between motivation across various healthcare professions, including physicians, nurses, midwives, nutritionists, physiotherapists, and medical rehabilitation personnel, and the completeness of Electronic Medical Record filling in outpatient services at hospitals that have fully implemented EMR systems. Therefore, this study was conducted to analyze the relationship between healthcare worker motivation and the completeness of Electronic Medical Record filling in the outpatient department of RSD Idaman Kota Banjarbaru.

Based on previous studies, most research has focused on the relationship between motivation and the use of electronic medical records, electronic medical record implementation, compliance with medical record filling, and healthcare worker performance. However, research specifically analyzing the relationship between healthcare worker motivation and electronic medical record filling completeness in outpatient services remains limited.

The novelty of this study lies in analyzing the relationship between the motivation of healthcare workers, consisting of physicians, nurses, midwives, nutritionists, physiotherapists, and medical rehabilitation personnel, and the completeness of electronic medical record filling in outpatient services at RSD Idaman Kota Banjarbaru, which has implemented an electronic medical record system in accordance with the digital transformation of healthcare.

Based on the explanation above, it remains unknown whether healthcare worker motivation is associated with the completeness of electronic medical record filling in the outpatient department of RSD Idaman Kota Banjarbaru. Therefore, this study aimed to analyze the relationship between healthcare worker motivation and electronic medical record filling completeness. The results are expected to serve as evaluation material for the hospital in improving the quality of electronic medical record documentation. The research hypothesis was that there is a relationship between healthcare worker motivation and the completeness of electronic medical record filling in the outpatient department of RSD Idaman Kota Banjarbaru, or that there is no relationship between healthcare worker motivation and the completeness of electronic medical record filling in the outpatient department of RSD Idaman Kota Banjarbaru.

Methods

This study used a quantitative research design with a cross-sectional approach and was conducted in May 2026 in the outpatient department of RSD Idaman Kota Banjarbaru. The study population consisted of physicians, nurses, midwives, nutrition personnel, physiotherapists, and medical rehabilitation personnel in the outpatient department of RSD Idaman Kota Banjarbaru. The sample consisted of 102 respondents determined using purposive sampling.

Univariate analysis was used to describe respondent characteristics and the frequency distribution of the study variables. Bivariate analysis used the Chi-Square test to determine the relationship between staff motivation and the completeness of electronic medical record filling. A p-value <0.05 was established as the threshold for statistical significance.

The study began with the submission and acquisition of research permission from RSD Idaman Kota Banjarbaru. After obtaining permission, the researcher visited each outpatient clinic to collect data. Research questionnaires and informed consent forms were distributed to healthcare workers who met the respondent criteria. Respondents were given 1–2 days to complete the questionnaire, after which the researcher collected the completed questionnaires. The collected data then underwent editing, coding, and data entry processes and were analyzed using SPSS.

Data on staff motivation were collected using a questionnaire that had been tested for validity and reliability, while electronic medical record filling completeness was assessed using a checklist.

This study obtained ethical approval from the Health Research Ethics Committee (KEPK) of RSD Idaman Kota Banjarbaru based on the Ethical Clearance Certificate Number 068 / KEPK-RSDI / V / 2026 before the study was conducted.

Results

This study aimed to determine the relationship between staff motivation and the completeness of electronic medical record filling in the outpatient department of RSD Idaman Kota Banjarbaru.

Table 1. Frequency Distribution of Outpatient Staff Characteristics at RSD Idaman Kota Banjarbaru in 2026

No	Information	Frequency	Percentage%
Gender			
1.	Male	23	28
2.	Female	59	72
Total		82	100
Age			
1.	Late adolescence (17-25)	4	4,9
2.	Early adulthood (26-35)	24	29,3
3.	Late adulthood (36-45)	28	34,1
4.	Early elderly (46-55)	21	25,6
5.	Late elderly (56-65)	5	6,1
Total		82	100
Education			
1.	Diploma (D1/D4)	43	52,4
2.	S1	26	31,7
3.	S2	12	14,6
4.	S3	1	1,2
Total		82	100
Profession			
1.	Physician	17	20,7
2.	Nurse	36	43,9
3.	Midwife	8	9,8
4.	Nutrition	2	2,4
5.	Occupational therapy	3	3,7
6.	Speech therapy	3	3,7
7.	Behavioral therapy	2	2,4
8.	Physiotherapy	11	13,4
Total		82	100
Work Experience			
1.	<1 year	9	11
2.	>1 year	73	89
Total		82	100

Source: Primary Data, 2026

Based on Table 1, the majority of respondents were female, totaling 59 people (72%); were in the late adulthood age group, totaling 28 people (34.1%); had a diploma-

level education (D3/D4), totaling 43 people (52.4%); worked as nurses, totaling 36 people (43.9%); and had more than 1 year of work experience, totaling 73 people (89%).

Table 2. Distribution of Staff Motivation and Medical Record Filling Completeness Variables in the Outpatient Department of RSD Idaman Kota Banjarbaru in 2026

Variable	Category	Frequency	Percentage%
Staff motivation	High	79	96,3
	Low	3	3,7
Electronic medical record filling completeness	Complete	32	39
	Incomplete	50	61

Source: Primary Data, 2026

Based on Table 2, the results showed that the majority of respondents had a high level of motivation, namely 79 people (96.3%). This indicates that most healthcare workers had high work motivation based on the motivation indicators used in the study. Meanwhile, regarding electronic medical record filling completeness, the majority were in the incomplete category, namely 50 people (61%). This indicates that most electronic medical record entries made by healthcare workers still did not meet the completeness criteria according to the indicators used in the study.

Table 3. Distribution of Staff Motivation and Medical Record Filling Completeness Variables in the Outpatient Department of RSD Idaman Kota Banjarbaru in 2026

Variable	χ^2	Contingency Coefficient (C)	p-value
Staff motivation	0,042	0,023	0,837
Electronic medical record filling completeness			

Source: Primary Data, 2026

Based on Table 3, the Chi-Square test results showed a Pearson Chi-Square value of 0.042 with a p-value of 0.837. Because the p-value was greater than 0.05 ($0.837 > 0.05$), it can be concluded that there was no significant relationship between staff motivation and Electronic Medical Record (EMR) filling completeness. The contingency coefficient of 0.023 indicates that the level of association between the two variables was very weak.

Discussion

This study showed that staff motivation was not significantly associated with the completeness of Electronic Medical Record (EMR) filling in the outpatient department of RSD Idaman Kota Banjarbaru. This finding indicates that work motivation was not the main factor determining EMR filling completeness at the study site. Although most staff had good work motivation, EMR filling completeness remained suboptimal. This condition indicates that other factors may have a more dominant influence on staff compliance with completing electronic medical record documentation.

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The absence of an association between motivation and EMR filling completeness can be explained by the fact that medical record documentation is influenced not only by individual factors but also by organizational, system, and work-environment factors. EMR filling is part of the service process and requires good information system support, sufficient time, a balanced workload, supervision, and compliance with standard operating procedures. If any of these factors is not functioning optimally, high staff motivation may not necessarily be accompanied by complete medical record documentation. This interpretation is supported by Dewi et al. (2025), who stated that incomplete electronic medical record filling is influenced by various factors, including workload, low motivation, and staff attitudes toward the importance of documentation. In addition, Novana et al. (2024) explained that insufficient dissemination of standard operating procedures (SOPs), monitoring, evaluation, and limited resources also contribute to incomplete electronic medical record filling.

The results of this study are consistent with the study by Michaela et al. (2024), which stated that the work motivation of specialist physicians was not significantly associated with the completeness of inpatient medical record filling. The study explained

that medical record completeness was more strongly influenced by other factors, such as workload, discipline, hospital policies, and the supervision system. The similarity of these results reinforces that motivation is not the only determinant in improving the quality of medical record documentation.

However, the results of this study differ from those of Kassiuw and Hidayat (2024), who reported that healthcare worker motivation was associated with the implementation of Electronic Medical Records and service efficiency. The difference in findings may be due to differences in the dependent variables studied. Kassiuw and Hidayat focused more on the implementation and use of the EMR system, whereas this study focused on the completeness of EMR documentation. System implementation and documentation completeness are two different aspects. Staff may have high motivation to use an electronic system but may not necessarily be able to complete all documentation components when technical or organizational constraints remain.

The findings of this study can also be explained based on Herzberg's Two-Factor Theory (1966), which states that work motivation is influenced by motivator and hygiene factors. Motivator factors, such as achievement, recognition, responsibility, and opportunities for growth, play a role in increasing job satisfaction. Meanwhile, hygiene factors, such as organizational policies, working conditions, interpersonal relationships, and supervision, function to prevent job dissatisfaction. In the context of this study, high staff motivation may have been influenced by motivator factors, while EMR filling completeness was still influenced by hygiene factors that did not fully provide support, such as workload, monitoring, evaluation, and implementation of standard operating procedures.

These findings imply that increasing staff motivation alone is not sufficient to improve EMR filling completeness. Hospitals need to adopt a more comprehensive approach through strengthened supervision, routine monitoring, compliance evaluation, optimization of hospital information systems, improvement of standard operating procedures, and provision of regular feedback to healthcare workers. These efforts are expected to improve staff compliance in completing electronic medical record documentation so that service quality, patient safety, and medical record data quality can continue to improve.

Conclusion

This study aimed to analyze the relationship between staff motivation and the completeness of Electronic Medical Record (EMR) filling in the outpatient department of RSD Idaman Kota Banjarbaru. The results showed that staff motivation was not significantly associated with EMR filling completeness, indicating that completeness may also be influenced by other factors, such as workload, supervision, compliance with standard operating procedures, and hospital information system support. The strength of this study is that it involved various healthcare professions in outpatient services, providing a more comprehensive picture of the relationship between staff motivation and EMR filling completeness. However, the study was limited to one hospital and used a cross-sectional design, which cannot explain causal relationships or represent conditions in other healthcare facilities. Future research should examine other factors, including workload, knowledge, compliance with standard operating procedures, information system quality, organizational culture, and the effectiveness of supervision and monitoring, using broader hospital coverage or longitudinal and mixed-methods designs to gain a deeper understanding of the factors influencing EMR documentation completeness and support the development of strategies to improve documentation quality in hospitals.

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