

Factor influencing electronic nursing documentation in type C Private Hospitals Pekanbaru

Fitra Mayenti^{1*}, Dwi Yunita Rahmadhani², Ahmad Redho¹, Tengku Isni Yuli Lestari Putri¹

¹Department of Nursing, Fakultas Kesehatan, Institut Kesehatan dan Teknologi Al Insyirah, Indonesia
Jalan Parit Indah No. 38 Kota Pekanbaru, Indonesia

²Department of Nursing Profession, Fakultas Ilmu Kesehatan, Universitas Baiturrahim, Jambi,
Indonesia
Jalan Prof. M. Yamin SH No 30, Lebak Bandung, Kecamatan Jelutung, Kota Jambi, Indonesia

*Corresponding author : fitramayenti19@gmail.com

ABSTRACT

Background: *Electronic Nursing Documentation (EDN) practices in Class C hospitals are crucial for implementing the current care system. However, EDN practices in developing cities like Pekanbaru have not been fully implemented, and the factors influencing them remain poorly understood.*

Objectives: *This study aims to analyze the factors influencing electronic nursing documentation among nurses in inpatient wards at Class C hospitals in Pekanbaru City.*

Methods: *This is an observational, analytical, cross-sectional study. The study was conducted at three private Class C hospitals in Pekanbaru: Ibnu Sina Hospital, Syafira Hospital, and Sansani Hospital. Data were collected through questionnaires from 173 nurses who met the inclusion and exclusion criteria. Factors such as demographics, psychological conditions, job satisfaction, stress, personality, organizational factors, and work compensation systems were measured. Analysis used chi-square analysis followed by multiple logistic regression.*

Results: *In this study, hospital type, age, education, biological stress, supervisory organizational factors, and rewards system were significantly associated (p -value < 0.05), while other factors were not. Multivariate analysis revealed that five variables significantly associated nurse documentation: age, education level, biological stress, supervision, and reward systems (p < 0.05). Supervisory organizational factors (OR = 15.429) and reward systems (OR = 8.657) were the most dominant.*

Conclusions: *The finding indicate that supervision and institutional incentive system are significantly associated with electronic nursing documentation practice among nurse. Nurse with better supervision and more supportive reward systems tended to demonstrate improve documentation practices. These findings suggest that organizational factor may contribute to supporting electronic documentation, although further longitudinal or experimental studies are needed to confirm causality.*

KEYWORD : *electronic nursing documentation; private hospitals; staff nurses*

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INTRODUCTION

Electronic Nursing Documentation (END) has played a crucial role in the revolution in healthcare delivery brought about by the digitalization of global healthcare systems. Electron systems ensure accountability in healthcare practices and improve patient safety (1). Electronic technology offers instant access to patient data, enhancing the healthcare team's capacity to plan and make informed decisions (2). The transition from paper-based to electronic documentation involves more than simply changing formats; it involves comprehensive technology integration into nursing practice (3). Electronic technology reduces the risk of adverse events and encourages action by providing real-time access to patient data (4,5). The World Health Organization (WHO) has emphasized integrating digital technology into healthcare to improve the quality of care and prevent medical problems (6). In many developed countries, electronic documentation improves the accuracy and completeness of patient records, which is crucial for effective clinical decision-making and patient safety (7).

However, in Indonesia, the adoption of these systems still faces various challenges. Many healthcare facilities, particularly in

rural areas, lack the IT infrastructure to manage electronic medical record (EMR) systems. This includes poor internet access and outdated equipment (8,9). Although the government has issued Minister of Health Regulation Number 24 of 2022 concerning Electronic Medical Records as the regulatory basis for implementing documentation digitization, implementation in the field has not been optimal. Research by Hariyati et al. (2020) noted that the success of electronic documentation implementation is highly dependent on technological readiness and human resource competency (10). Suroso and Santosa (2023) reported that only 42% of Type C hospitals have electronic nursing documentation systems, and several large systems are not yet consistently used by nursing staff (11).

In a more detailed context, a more tangible local challenge is found in private type C hospitals in developing areas such as Pekanbaru City. Implementation of electronic documentation systems in these institutions is often hampered by limited information technology infrastructure, lack of technical training, and weaknesses in managerial support and institutional policies (12,13). Nurses often experience high workloads due to documentation activities.

For example, organizational documentation is perceived as unnecessary and time-consuming, adding to perceived stress without improving patient care outcomes (14). The complexity and volume of tasks in electronic health records (EHRs) can increase nurses' cognitive load, leading to stress and burnout (15). The transition from paper-based to electronic systems requires nurses to adapt to new technology, which can be challenging for those with limited digital literacy. This transition can lead to increased stress and errors in documentation (16).

Various interventions, such as training, have been attempted, but their success largely depends on multiple determinants (17). These factors include internal factors, such as nurse characteristics, psychological aspects, job satisfaction levels, job stress levels, and personality traits based on the Big Five dimensions. In addition, there are also external factors in the form of organizational support, reward systems, and technical factors, namely system reliability and facility use (usability). Previous research has examined some of these factors, which are, in certain ways, separate. However, no comprehensive study has integrated all dimensions into a single research model, especially in the context of type C private hospitals (18).

Electronic nursing documentation is the digital process of recording nursing care activities in an electronic health record

(EHR) system. This includes electronic documentation of assessments, diagnoses, plans, interventions, evaluations, and nursing notes. Accurate and timely electronic documentation plays a crucial role in continuity of care, legal protection, and hospital accreditation.

Factors influencing electronic nursing documentation include internal factors such as nurse characteristics, psychological factors, job satisfaction and stress levels, and personality traits based on the Big Five dimensions. Additionally, external factors include organizational support, reward systems, and technical factors, namely system reliability and facility utilization. Previous research has examined some factors separately, but no comprehensive study has integrated all dimensions into a single research model, particularly in Type C Private Hospitals. This study aims to analyze the factors influencing electronic nursing documentation in Type C Private Hospitals in Pekanbaru.

MATERIALS AND METHODS

This study used a cross-sectional design. This study was conducted from January to September 2024 at three type C private hospitals in Pekanbaru City: Ibnu Sina Hospital, Syarifah Hidayatullah Hospital, and Sansani Hospital. The population study consisted of 203 nurses working in inpatient wards who were involved in electronic documentation of nursing care. This study used a purposive sampling technique to

obtain 173 people. Inclusion criteria are nurses working in inpatient wards, with at least 6 months of work experience, who use an electronic documentation system. Nurses who were on leave, refused participation, and were not directly involved in nursing documentation were excluded.

Data were collected using a questionnaire developed from existing studies and theoretical instruments. The electronic documentation practice were measured using 10 item questionnaire assessing frequency, accuracy, completeness, and quickly documentation on a 5 point likert scale (1=never to 5=always).

The questionnaire also consisted of Nurse characteristics, Psychological factors (perceptions, attitudes, motivations based on Health Belief Model and the Technology Acceptance Model (TAM) (23,24). Job satisfaction measured using the Minnesota Satisfaction Questionnaire (MSQ) (25). Job stress assessed through biological, psychological, and social dimensions (26,27). Personality in this study was measured using a questionnaire based on the Big Five Personality Traits (28) and External organizational factors measured the influence of institutional factors on nurses' work performance and compliance (29,31).

The questionnaire was tested for validity and reliability, achieving a Cronbach's Alpha of 0.7 or higher. Data analysis was conducted in three stages.

Univariate analysis described the frequency distribution. Bivariate analysis used the chi-square test. Third, multivariate analysis was conducted using multiple logistic regression using the backward LR method in SPSS. The significance level was set at $p < 0.05$. This study upholds research ethics by respecting respondents, being fair, providing benefits, and avoiding harm.

This study has received ethics approval from the Health Research Ethics Committee of Hang Tuah University, Pekan Baru, under number 615/KEPK/STIKes-HTP/IX/2023.

RESULTS AND DISCUSSION

This section delineates the findings from the data analysis derived from 173 respondents, including implementing nurses, across three type C private hospitals in Pekanbaru City. Data are provided through frequency tables, bivariate tests, and multivariate analysis to determine the primary factors influencing the use of electronic documentation in the nursing work environment.

Table 1 bellow, shows that the majority of nurses are in the 21–30 age group (62.4%). Most respondents came from Ibnu Sina Hospital (46.2%), followed by Syafira Hospital (40.5%) and Sansani Hospital (13.3%). A total of 81.5% of respondents were female. Based on educational level, most nurses had a Diploma 3 education (65.9%), while the rest were professional nurse (34.1%). Regarding

length of working, 56.6% of respondents had worked for more than 3 years, and 43.4% had worked for less than 3 years.

Most nurses (68.8%) had received training in electronic nursing documentation, while 31.2% had not.

Table 1. Frequency distribution of characteristics of nurses in the inpatient ward of Type C Hospital, Pekanbaru City

Variable	n	%
Characteristics		
Age (Year)		
21-30	108	62.4
31-40	42	24.3
40-50	22	12.7
50-60	1	0.6
Total	173	100
Name Of Hospital		
Ibn Sina Hospital	80	46.2
Syafira Hospital	70	40.5
Sansani Hospital	23	13.3
Total	173	100
Gender		
Female	141	81.5
Male	32	18.5
Total	173	100
Nursing education		
Diploma 3	114	65.9
Professional Nurse	59	34.1
Total	173	100
Length of working		
< 3 years	75	43.4
> 3 years	98	56.6
Total	173	100
Training		
No	54	31.2
Yes	119	68.8
Total	173	100

Table 2. Relationship between characteristic factors , Psychological factors, satisfaction work , work stress, personality , organizational factors and Rewards system with documentation electronic care nursing in the nurse in the room take care Hospital Type C Hospital in Pekanbaru City

Variables	Documentation		Total	P value
	Good f (%)	Not enough f (%)		
Characteristics				
Age (Year)				
21-30	13 (12.0)	95 (88.0)	108 (100)	0
31-40	15 (35.7)	27 (64.3)	42 (100)	
40-50	12 (54.5)	10 (45.5)	22 (100)	
50-60	0 (0.0)	1 (100.0)	1 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Name Of Hospital				
Ibn Sina Hospital	30 (37.5)	50 (62.5)	80 (100)	0
Syafira Hospital	8 (11.4)	62 (88.6)	70 (100)	
Sansani Hospital	2 (8.7)	21 (91.3)	23 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Gender				
Female	31 (22.0)	110 (78.0)	141 (100)	0.609
Male	9 (28.1)	23 (71.9)	32 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Education				
D3	35 (30.7)	79 (69.3)	114 (100)	0.001
Bachelor	5 (8.5)	54 (91.5)	59 (100)	
Nurse	40 (23.1)	133 (76.9)	173 (100)	
Total				
Length of working				
< 3 years	8 (10.7)	67 (89.3)	75 (100)	0.001
> 3 years	32 (32.7)	66 (67.3)	98 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Training				
No	10 (18.5)	44 (81.5)	54 (100)	0.44
Yes	30 (25.2)	89 (74.8)	119 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Psychological factors				
Perception				
Negative	10 (35.7)	18 (64.3)	28 (100)	0.138
Positive	30 (20.7)	115 (79.3)	145 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	

Attitude				
Negative	8 (29.6)	19 (70.4)	27 (100)	0.532
Positive	32 (21.9)	114 (78.1)	146 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Motivation				
Not enough	10 (18.5)	44 (81.5)	54 (100)	0.44
Good	30 (25.2)	89 (74.8)	119 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Satisfaction Work				
Not enough	21 (23.3)	69 (76.7)	90 (100)	1
Good	19 (22.9)	64 (77.1)	83 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Work stress				
Biological stress				
No stress	26 (32.5)	54 (67.5)	80 (100)	0.011
Stress	14 (15.1)	79 (84.9)	93 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Psychological stress				
No stress	25 (29.1)	61 (70.9)	86 (100)	0.096
Stress	15 (17.2)	72 (82.8)	87 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Social stress				
No stress	21 (22.6)	72 (77.4)	93 (100)	0.999
Stress	19 (23.8)	61 (76.3)	80 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Personality				
Extraversion				
Not enough	20 (25.6)	58 (74.4)	78 (100)	0.596
Good	20 (21.1)	75 (78.9)	95 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Neuritus				
Not enough	17 (23.0)	57 (77.0)	74 (100)	1
Good	23 (23.2)	76 (76.8)	99 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Openness To Experience				
Not enough	22 (25.9)	63 (74.1)	85 (100)	0.505
Good	18 (20.5)	70 (79.5)	88 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Agreeableness				
Not enough	21 (24.4)	65 (75.6)	86 (100)	0.824
Good	19 (21.8)	68 (78.2)	87 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	

Conscientiousness				
Not enough	17 (23.0)	57 (77.0)	28 (100)	1
Good	23 (23.2)	76 (76.8)	145 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Organizational Factors				
Supervision	16 (57.1)	12 (42.9)	35 (100)	0
Not enough	24 (16.6)	121 (83.4)	138 (100)	
Good	40 (23.1)	133 (76.9)	173 (100)	
Total				
Design				
Not enough	10 (28.6)	25 (71.4)	35 (100)	0.528
Good	30 (21.7)	108 (78.3)	138 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Structure				
Not enough	4 (16.7)	20 (83.3)	24 (100)	0.584
Good	36 (24.2)	113 (75.8)	149 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	
Reward system				
Not enough	28 (42.4)	38 (57.6)	66 (100)	0
Good	12 (11.2)	95 (88.8)	107 (100)	
Total	40 (23.1)	133 (76.9)	173 (100)	

Table 2 shows the relationship between nurse characteristics, psychological and organizational factors, and electronic nursing documentation in Type C hospitals in Pekanbaru. The results showed a significant relationship between age, hospital name, education and length of working ($p < 0.05$) with electronic documentation practices. For work stress variables, biological stress showed a significant relationship with documentation practices ($p = 0.011$). In terms of personality, the five dimensions (Extroversion, Neuroticism, Openness, Agreeableness, and Conscientiousness) did not have a statistically significant relationship to electronic documentation ($p > 0.05$).

Organizational factors found a significant relationship between supervision ($p = 0.000$) and reward system ($p = 0.000$) with electronic documentation. Meanwhile, work design ($p = 0.528$) and organizational structure ($p = 0.584$) did not show a statistically significant relationship.

Multivariate analysis was conducted to identify the most significant variables associate the practice of electronic documentation of nursing care in implementing nurses. Modeling was performed using multiple logistic regression with the Backward LR through the SPSS application. The variables entered into the model have a p-value < 0.25 in the bivariate analysis. Nurses' educational experience

equips them to adapt to and use digital documentation systems effectively (28). Ease of use of electronic medical record (EMR) systems associated with adherence. Nurses in the 21-30 age group generally found the systems easy to use, but system errors and connection failures were significant barriers (29). Several factors, including self-efficacy, knowledge, motivation, and ease of use of electronic systems, were associated with adherence with electronic nursing documentation among nurses aged 21-30. The hospital name also showed a significant relationship. Previous research has shown that institutional leadership and policy variables significantly associated with the speed and quality of electronic documentation integration (30). Addressing infrastructure gaps is crucial to ensuring equitable access to digital systems across regions and institutions (37).

Gender was not significantly associated with electronic documentation of nursing care among nurse practitioners. This is consistent with the findings of Khudhayer et al., who reported no significant differences in electronic documentation practices based on gender, age, or length of working (40). Nurses with higher levels of education tended to be more compliant with electronic documentation. These skills help nurses assess healthcare challenges from a broader perspective and adopt an evidence-based approach to improve patient

outcomes (41). The majority of respondents had been working for more than three years. Length of working showed a significant difference ($p = 0.001$), with nurses with more than three years of experience documenting more care electronically. This finding supports the findings (43), that experienced nurses may have witnessed the evolution of EHR systems and their increasing integration into healthcare settings, which may increase their confidence in using these systems effectively (35). Nurses with less experience or digital literacy may have had difficulty transitioning to electronic systems. In this study, training was not significantly associated with nurses' electronic documentation of nursing care. Previous research has found that training programs aimed at improving digital literacy among nurses, which have been shown to increase engagement with digital workflows, have shown that experienced nurses who have undergone such training are more likely to document electronically (40). Addressing this issue, in addition to offering training, may lead to more effective implementation and utilization of electronic record-keeping systems in nursing care.

These psychological factors were not significantly associated with electronic nursing care documentation. This is consistent with the Technology Acceptance Model (TAM), which posits that perceived usefulness and positive attitudes are key predictors of actual system use (36).

Similarly, a literature review indicates that while electronic medical records are beneficial, their full benefits are not always realized, suggesting that factors beyond psychological perceptions play a role (47). These mixed results suggest that electronic medical records (EMRs) improve the effectiveness and accuracy of nursing documentation, thereby increasing work productivity and facilitating the retrieval of patient data for nursing diagnoses. This implies that EMRs can significantly improve the quality of care for nurses (38). Electronic documentation systems can improve job satisfaction by making nursing tasks more efficient and improving the quality of care, but the effects are not always beneficial. The way EMRs are designed, implemented, and supported for nurses significantly impacts their job satisfaction. According to these findings, the only factor significantly associated with electronic nursing care documentation was biological stress. This aligns with research showing that shift pressure and heavy workloads are major causes of stress for nurses, as they increase the mental and physical demands of the job. Managing an EHR, which can be complex and time-consuming, adds to this stress. Because it can lead to dissatisfaction and increase the amount of time spent on documentation, poor EHR system usability is a major stressor (51). There was no significant correlation between this type of nurse and nurses who electronically document care.

Openness, conscientiousness, extroversion, agreeableness, and neuroticism are five key personality traits that predict a range of professional outcomes, such as burnout and job performance (55). Research showing that other factors, such as perceptions of job attributes and organizational support, have a greater impact on determining adherence and motivation in nursing documentation practices reinforces these findings.

There was a substantial correlation between nurses' electronic nursing documentation and organizational supervision variables. This study also identified an odds ratio of 5.538, indicating that appropriate supervision significantly improves documentation quality (57). Another study showed that supervision significantly improved nurses' performance (from 81.8% to 89.1%) (58). Monitoring is crucial, but other factors, such as knowledge and motivation, can associate documentation quality. The relationship between nurses' electronic nursing care documentation and nurses' rewards system was significant. Similarly, nurses who rated the system's incentives as good recorded more electronically. Incentives can increase motivation, which in turn can increase adherence to electronic documentation standards (60). A good reward system was associated with more electronic documentation of nursing care, indicating a substantial relationship between nurses' rewards system and electronic

Table 3. Determinant factors related to electronic documentation of nursing care for implementing nurses in the inpatient room of a Type C Private Hospital in Pekanbaru City

Variable	B	SE	P value	Exp (B)	95% CI for EXP(B)	
					Lower	Upper
Final model						
Age	- 0 .876	0 .312	0 .005	0 .417	0 .226	0 .768
Education	0 .712	0 .290	0 .014	2,038	1.155	3,598
Biological Stress	1,464	0 .521	0 .005	4.322	1,556	12
Supervision	2,736	0 .620	0 .000	15,429	4,579	51,986
Rewards system	2.158	0 .534	0 .000	8,657	3,04	24,654
Constant	-8,581	1,941	0 .000	0 .000		

documentation. Perceived benefits of the electronic documentation system, motivation, and knowledge are some of the elements underlying this relationship. Electronic documentation is crucial for improving the effectiveness and quality of nursing care, and nurses who have positive perceptions of their reward system are more likely to use it.

Based on **Table 3**, a multivariate analysis was obtained to determine the modeling and factors that most associated with electronic documentation of nursing care for implementing nurses in the inpatient ward of a type C hospital in Pekanbaru City. In the final model, five significant variables (age, education, biological stress, supervision and rewards system) associated with the electronic documentation of nursing care for implementing nurses ($p < 0.05$). The supervision factor was the most predictor ($p = 0.000$; OR = 15.429), which means that the supervisory organization factor increased the chances of implementing

electronic documentation of nursing care for implementing nurses fifteen times compared to those without supervision.

According to the final model, supervision significantly impacted electronic care nursing practice documentation ($p = 0.000$; OR = 15.429; 95% CI: 4.579-51.986). The high odds ratio indicates that nurses who received appropriate supervision were 15 times more likely to perform electronic documentation as efficiently as those who did not receive supervision. This finding is confirmed by (62,63). It has been repeatedly noted that supervision plays a crucial role in determining the quality and completeness of nursing documentation. Research has shown that adequate supervision improves nursing documentation performance and that when supervision is present, documentation completeness increases significantly. The importance of supervision in improving documentation procedures is highlighted by a study at Gunung Maria General Hospital in Tomohon, which showed a significant

relationship between head nurse supervision and nursing documentation performance, with an OR of 5.538 (41). In addition to improving documentation procedures, good supervision generally improves nursing performance and patient care standards. This ensures thorough, methodical, and legally responsible documentation, all of which are essential for patient safety and continuity of care (46). Better documentation methods are also associated with supervision and a manageable workload. A balanced workload ensures that nurses have the time and energy to document accurately, while adequate supervision can increase motivation.

Rewards system were the second most important component ($p = 0.000$; OR = 8.657; 95% CI: 3.040-24.654). Nurses who believed they received fair rewards from the system, whether through monetary remuneration, recognition, or performance awards, were 8.6 times more likely to complete electronic documentation consistently. According to research by (43) nurses' motivation was significantly increased by rewards, both monetary and recognition, which increased their adherence to documentation standards. Research has demonstrated a positive relationship between incentive-driven motivation and the quality of nursing care documentation, suggesting that incentives can lead to more thorough and accurate records (65). Biological stress also had a

substantial impact ($p = 0.005$; OR = 4.322). Nurses experiencing physiologically observable stress, such as physical tension or fatigue, were more likely to continue documenting their experiences through technological means. This may be related to how efficiently electronic systems are perceived compared to manual systems, especially under pressure. According to Mhlanga (2024), nurses under pressure to perform well should choose documentation methods that expedite administrative procedures to reduce physical stress. The broader context of the nursing work environment should be considered, although rewards system significantly encourage adherence to electronic documentation. Nurses' documentation practices are also significantly associated with leadership, organizational culture, and resource availability.

Education and documentation had a substantial correlation ($p = 0.014$; OR = 2.038). Compared with nurses with a vocational background, those with a professional or higher education were twice as likely to use electronic documentation. This is consistent with the fact that higher education is crucial for achieving appropriate documentation practices, as other studies have found a relationship between education and the quality of nursing documentation (48). Electronic documentation was more likely to be used by nurses with a professional educational background. This is because training in

electronic health records (EHRs) and other digital tools, which are essential for contemporary documentation practices, is often included in higher education (49). Experience, encouragement, and organizational support are all important contributors to improved procedures, although education is a key component. For example, experienced nurses are more likely to document promptly, and organizational elements such as support networks and resource availability can be associated with documentation procedures.

Additionally, age was statistically significant ($p = 0.005$; $OR = 0.417$), albeit with a negative association. Younger nurses were more likely to use electronic documentation than older nurses. Younger nurses are typically more technologically savvy because they grew up in the digital age. Because of this familiarity, they may use electronic documentation systems more effectively and comfortably (34). Training in electronic health records (EHRs) and other digital tools is often included in educational programs for younger nurses. Utilizing these systems can increase their competence and confidence (67). The strong relationship between supervision and electronic documentation practices may stem from nursing leaders establishing structured workflows. This study examined the completeness, accuracy, and timeliness of electronic health records within their documentation practices. Nurses under closer supervision may better adhere to

documentation standards. Although personality traits did not show a significant correlation, it is understood that the structured format of electronic forms limits individual variability in documentation behavior. This comprehensive measure can explain nuanced results across variables.

The results of this study provide additional insights into electronic nursing documentation. They are the first to examine the influence of psychological and organizational factors on nurses in a Type C private hospital in Pekanbaru.

While Previous studies have focused solely on technology and individual factors, but have not examined organizational factors simultaneously. These results demonstrate the importance of organizational factors, particularly supervision and reward systems, are significantly associated with electronic nursing documentation practices. These findings suggest that institutional support may play an important role in supporting the implementation of electronic nursing documentation in hospitals.

CONCLUSION AND RECOMMENDATION

The findings of this study indicate that among the several variables examined, five factors were strongly associated with the application of electronic documentation in nursing care: age, educational attainment, biological stress, supervision, and the job reward system. Among the five criteria, supervision and rewards system showed

the strongest associations with nurses' adherence to the electronic recording system.

Nurses who reported better supervision and more supportive reward system tended to demonstrated better documentation practices. However, due the cross sectional design, these findings reflect association rather than causal relationships. These result suggest that strengthening supervision, improving reward system, and providing tailored training based on nurses' characteristics may support electronic documentation practices. Additionally, efforts to address workload and work-related stress may also contribute to improving documentation performance in similar healthcare settings.

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