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The Relationship Between Medical Record Quality and Nursing Care Quality

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Abstract

This study aims to analyze the relationship between the quality of medical records and the quality of nursing care in the inpatient ward of a hospital. Method: This study used a quantitative design with a cross-sectional approach. The study sample consisted of 86 patient medical records selected using a purposive sampling technique. The instruments used were medical record quality observation sheets based on the aspects of completeness, accuracy, timeliness, and readability, as well as nursing care quality audit sheets based on nursing process standards (assessment, diagnosis, intervention, implementation, and evaluation). Data analysis was performed using the chi-square test with a significance level of 0.05. Results: The results showed that most medical records were in the good category (62.8%) and the quality of nursing care was also in the good category (65.1%). The results of statistical tests showed a significant relationship between the quality of medical records and the quality of nursing care (p-value = 0.003; $p < 0.05$). The better the quality of medical records, the better the quality of nursing care provided. Conclusion: There is a significant relationship between the quality of medical records and the quality of nursing care. Improving the quality of medical record documentation can support the improvement of the quality of nursing services. Hospitals are advised to improve supervision and training related to nursing documentation to ensure optimal service quality.

Keywords: Nursing Documentation, Medical Record Quality, Nursing Care Quality

INTRODUCTION

The quality of healthcare services is a key indicator in assessing the performance of healthcare facilities and patient safety [1] Complete, accurate, and timely medical record documentation plays a crucial role in ensuring continuity of care and clinical decision-making [2].

Medical records also serve as a multidisciplinary communication tool that directly impacts the quality of patient care [4]. Nursing documentation is an integral part of the nursing process, encompassing assessment, diagnosis, planning, implementation, and evaluation [4]. Good quality nursing documentation

has been shown to be associated with increased patient safety and a reduction in adverse events [5]. Incomplete documentation can lead to communication errors and increase the risk of patient safety incidents [1].

The development of electronic medical records (EMR) in modern healthcare systems has contributed to improving the quality of clinical documentation [2]. Optimal EMR implementation can improve healthcare team coordination and service efficiency [6]. However, the effectiveness of the documentation system still depends on the competence and compliance of healthcare workers in recording according to standards[4].

Hospital accreditation standards emphasize that systematic and continuous documentation is an indicator of nursing service quality [7]. Documentation that does not meet standards can impact the quality of care and patient dissatisfaction [6]. Recent research shows a significant relationship between the quality of nursing documentation and the quality of care provided to patients in hospitals [3].

Despite this, various studies report that incomplete and delayed medical record recording persists in healthcare facilities [5]. This situation has the potential to reduce the quality of nursing care and hinder comprehensive service quality evaluation[2]. Research by Wang et al. (2021) shows that incomplete nursing documentation is significantly correlated with an increased risk of miscommunication between healthcare professionals and decreased continuity of patient care.

Furthermore, a study by Mutshatshi et al. (2018) found that low-quality nursing documentation impacts suboptimal implementation of the nursing process and complicates clinical audits. Therefore, it is important to analyze the relationship between medical record quality and nursing care quality as a basis for formulating strategies to improve service quality [1]. The purpose of this study was to analyze the relationship between medical record quality and nursing care quality in hospital inpatient wards.

RESEARCH METHODOLOGY

This research is a quantitative study with a pre-experimental one group design. This study used a quantitative design with a cross-sectional approach. The study was conducted in December 2025. The research sample consisted of 86 patient medical records selected using a purposive sampling technique.

The instruments used were medical record quality observation sheets based on aspects of completeness, accuracy, timeliness, and readability, as well as nursing care quality audit sheets based on nursing process standards (assessment, diagnosis, intervention, implementation, and evaluation). Data analysis was performed using the chi-square test with a significance level of 0.05. Research Ethics of Tarumanagara Institute.

RESULTS

Table 1. Distribution of Respondent Characteristics (n=86)

Characteristics	Frequency (f)	Percentage (%)
Age		
26–35 years	38	44,2
36–45 years	28	32,6
>45 years	20	23,2
Gender		
Female	62	72,1
Male	24	27,9
Education Level		
Diploma III in Nursing	36	41,9
Professional Nurse (Ners)	50	58,1
Length of Employment		
< 5 years	37	43
≥ 5 years	49	57
Total	86	100

Respondent characteristics: The majority of respondents were in the 26–35 age group (38 people (44.2%). The majority were female (62 people (72.1%). The majority of respondents had nursing education (50 people (58.1%) and the majority had a work experience of ≥5 years (49 people (57%). In general, the study respondents were dominated by early adult nurses, female, with a nursing professional education, and sufficient work experience.

Table 2 Distribution of Medical Record Quality (n = 86)

Quality of Medical Records	Frequency (f)	Percentage (%)	Mean	SD
Good	54	62,8	1,29	0,89
Fair	22	25,6		
Poor	10	11,6		
Total	**86**	**100**		

Table 2 shows the quality of medical records. The majority of medical records were in the good category, with 54 respondents (62.8%). The mean value of medical record quality was 1.29 with a standard deviation (SD) of 0.89, indicating that the overall quality of medical records in this study was in the good category.

Table 3 Distribution of Nursing Care Quality (n = 86)

Quality of Nursing Care	Frequency (f)	Percentage (%)	Mean	SD
Good	56	65,1	1,5	0,95
Fair	20	23,3		
Poor	10	11,6		
Total	**86**	**100**		

Regarding the quality of nursing care, the majority of respondents were in the good category, as many as 56 people (65.1%). The average value (mean) of 1.5 with a standard deviation (SD) of 0.95 indicates that in general the quality of nursing care in this study was in the good category.

Tabel 4 The Relationship between Medical Record Quality and Nursing Care Quality (n = 86)

Quality of Medical Records	Good Quality	Fair Quality	Poor Quality	Total	p-value
Good (54)	46	6	2	54	0.002
Fair (22)	8	10	4	22	
Poor (10)	2	4	4	10	
Total	**56**	**20**	**10**	**86**	

Table 4 shows the relationship between the quality of medical records and the quality of nursing care. The majority of medical records in the good category (54) have a good quality of nursing care, as many as 46 respondents. Meanwhile, in the poor quality of medical records, the majority of the quality of care is in the sufficient and poor categories. The results of the statistical test obtained a p-value = 0.002 ($p < 0.05$), which indicates that there is a significant relationship between the quality of medical records and the quality of nursing care. This means that the better the

quality of medical records, the better the quality of nursing care provided.

DISCUSSION

The characteristics of respondents in this study indicate that the majority of nurses were aged 26–35 years (44.2%). This finding is consistent with the study by Zhang et al. (2021), which reported that most hospital nursing staff fall within the early adulthood age range, considered a productive stage associated with optimal adaptability and clinical performance. Early adulthood is linked to strong physical and cognitive abilities in carrying out healthcare duties. Most respondents were female (72.1%) [8].

This finding aligns with the World Health Organization (2020), which states that approximately 70% of the global health workforce is dominated by women, particularly in the nursing profession. The predominance of women in nursing is associated with the historical development of the profession and social perceptions of caregiving roles. The majority of respondents held a professional nursing degree (Ners) (58.1%). This result is supported by Aiken et al. (2021), who demonstrated that a higher proportion of nurses with professional or bachelor-level education is associated with improved quality of care and patient safety. Higher education enhances clinical competence, critical thinking skills, and the quality of nursing documentation [9].

Most respondents had ≥5 years of work experience (57%). This finding is consistent with Alshammari et al. (2022), who reported that longer work experience is associated with improved clinical skills, better adherence to documentation standards, and higher quality of nursing care. Nurses with sufficient work experience tend to have a better understanding of procedures and service standards. Overall, the respondent characteristics in this study—predominantly early adult, female, professionally educated, and experienced nurses—are consistent with previous research indicating that demographic and professional factors contribute to the quality of nursing services and documentation. [9].

The results showed that the majority of medical records were categorized as good, with 54 respondents (62.8%), a mean score of 1.29, and a standard deviation of 0.89, indicating that overall medical record quality in this study was good. This finding aligns with Wang et al. (2021), who stated that high-quality nursing documentation is characterized by completeness, accuracy, and consistency, contributing to improved patient safety and service quality. Furthermore, Kruse et al. (2020), in their systematic review, found that well-documented medical record systems—both manual and electronic—are associated with improved care coordination and the quality of clinical information. Complete and timely documentation facilitates evaluation processes and clinical decision-making. [3].[2].

Another study by Vaismoradi et al. (2020) emphasized that nurses' compliance with documentation according to professional practice standards significantly impacts medical record quality. Standardization of documentation and continuous supervision are important factors in maintaining good medical record quality. Thus, the findings of this study are consistent with previous evidence that good medical record quality reflects

adherence to documentation standards and contributes to overall healthcare service improvement.

The results also showed that the majority of respondents were in the good category for quality of nursing care, with 56 respondents (65.1%), a mean of 1.5, and a standard deviation (SD) of 0.95, indicating that overall nursing care quality in this study was good. This finding is consistent with Aiken et al. (2021), who reported that high-quality nursing care is associated with professional competence and adherence to practice standards, leading to improved patient safety and service satisfaction. Additionally, Lake et al. (2019) found that supportive nursing practice environments are significantly associated with improved service quality and patient care outcomes. Nurses working within well-organized systems tend to provide more comprehensive and higher-quality care.

Bruyneel et al. (2021) further demonstrated that high-quality nursing care is associated with lower complication rates and improved patient outcomes. Good-quality care reflects systematic implementation of the nursing process, from assessment to evaluation. The study results indicated that among medical records categorized as good (54), the majority (46 respondents) also demonstrated good nursing care quality. In contrast, in the poor medical record category, nursing care quality tended to fall within the fair and poor categories. Statistical analysis showed a p-value of 0.002 ($p < 0.05$), indicating a significant relationship between medical record quality and nursing care quality. This means that better medical record quality is associated with better nursing care quality [11].

Several recent studies consistently demonstrate that the quality of documentation and the implementation of electronic health records (EHR) play a significant role in improving the quality of healthcare services. Li, E., et al. (2021) reported that the implementation of EHR in a tertiary hospital improved documentation accuracy, accelerated access to clinical information, and reduced medical errors, thus improving patient safety [12]. Similarly, Kang, M. et al., (2021) found that the completeness and accuracy of nursing documentation were positively associated with the effectiveness of interprofessional communication and the efficiency of clinical decision-making [13]. A systematic review by Sa Alomar, D., et al. (2024) showed that an integrated electronic medical record system can improve coordination of chronic care, reduce duplication of actions, and strengthen continuity of care [14]. Lee et al. (2022) also confirmed that the quality of nursing documentation correlates with quality indicators such as length of stay, the incidence of adverse events, and patient satisfaction [15]. Furthermore, Hussain, A., et al. (2025) reported that the quality of clinical documentation directly influences perceptions of service quality and patient trust levels [19]. Strudwick, et al. (2022) showed that standards-based documentation training improved nurse compliance and resulted in improved hospital accreditation scores [16]. An analysis by Li, E., et al., (2024) found that data interoperability in modern EHR systems strengthens inter-unit coordination and supports evidence-based practice [17]. Finally, a meta-analysis by Wang, R., et al. (2024) confirmed that complete and accurate clinical documentation is

significantly associated with improved patient safety, reduced therapeutic errors, and increased service satisfaction. Overall, these findings confirm that the quality of medical records is a strategic component in improving the quality of nursing care and health services [18].

CONCLUSION

There is a significant relationship between the quality of medical records and the quality of nursing care. Improving the quality of medical record documentation can support improvements in the quality of nursing services. Hospitals are advised to increase supervision and training related to nursing documentation to ensure optimal service quality.

SUGGESTIONS

Hospitals need to improve supervision and routine evaluation of the completeness of medical record documentation to maintain the quality of nursing care. Nurses also need to receive regular training on nursing documentation standards to maintain optimal record-keeping quality. Furthermore, further research is recommended to include other variables that may influence the quality of nursing care.

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