

The relationship between nurses' motivation and electronic nursing care documentation in a hospital inpatient unit

Darmawan VI¹, Tony Suharsono¹, Niko Dima Kristianingrum¹, Cahya MS², Djazuly Chalidyanto^{2*}

¹Department of Nursing, Faculty of Medicine, Universitas Brawijaya, Malang, Indonesia

²Department of Health Administration and Policy, Faculty of Public Health, Universitas Airlangga Indonesia

*Corresponding Author: Djazuly Chalidyanto

Department of Health Administration and Policy, Faculty of Public Health, Universitas Airlangga, Surabaya, East Java, Indonesia

Email: djazulych@fkm.unair.ac.id

Abstract. The difference in nurses completing nursing care documentation will harm nurses, patients, and other parties. One of the factors that influences the completeness of the civil care documentation is motivation. This study attempts to analyze the relationship between nurses' motivation and the completeness of the electronic nursing care documentation at the inpatient installation of a pulmonary hospital. This study was a correlational analysis study which employed a cross-sectional design. The respondents in this study were 48 nurses at an inpatient unit of a pulmonary hospital selected by the purposive sampling technique. The Spearman correlation rank statistical test results had a p-value of 0.000, which means that there was a significant relationship between nurses' motivation and the completeness of electronic nursing care documentation. Meanwhile, the Spearman correlation coefficient value was 0.665. The relationship between nurses' motivation and completeness of electronic nursing care documentation was indicated with a strong relationship, in which the positive results exhibited a direct relationship. The results demonstrated the good result of nurses' motivation and the completeness of electronic nursing care documentation. This study concluded that nurses with good motivation could increase the percentage and completeness of electronic nursing care documentation. It is recommended by the hospital to maintain the nurses' motivation better.

Keyword: completeness of nursing care documentation, nurses' motivation

1. Introduction

The essential element of nursing practice is a clear, accurate, and accessible documentation. Nurses practice across settings at any position levels from the bedside to the administrative office; the registered nurse and the advanced registered nurse practices are responsible and accountable for the nursing documentation used throughout an organization [1]. Policies are applied regarding record-keeping and registration of the patients data in each health organization. Following clinical standards is nurses' responsibility. Therefore, nursing estimations and interventions should be kept in a record by the nursing organizations, along with the nursing notes. There are formal nursing protocols regarding the observance of patients' documented files, and the existence of a nursing diagram, which ought to be convenient, complete, accurate, confidential, and individualized [2].

Inefficient and ineffective documentation due to inadequate quality and accuracy lead to communication errors between nurses and other professions [3]. Documentation is one of the authentic notes in the management application of professional nursing care. Professional nurses are expected to face the responsibility and accountability demands for all actions taken. Public awareness of the law is increasing, so that complete and clear documentation is required [4]. Electronic medical records have the potential to provide substantial benefits for health services, such as basic and referral service facilities (hospitals). One of the benefits in utilizing electronic medical records is to increase the availability of electronic patient records at the hospital. It is also worthwhile for patients since it increases efficiency in the healthcare process [5]. In addition to administrative staff, the utilization of electronic medical records can facilitate patient information retrieval [6]. Hence, health workers can access patient data with ease.

In a study at Cilegon Medika Hospital, it is known that the completeness of nursing care documents only reached 40%. In the similar study at Muhammadiyah Hospital Gresik, there were nursing care documents in the diagnosis and intervention section that were still empty and required to be filled out ($\geq 85\%$ of what should be filled out)[7]. This study attempts to discover the relationship between nurses' motivation and the completeness of electronic nursing care documentation in the inpatient installation of Jember Pulmonary Hospital. The electronic medical records of Jember Hospital receives a top 40 award at the national level from the Ministry of Administrative and Bureaucratic Reform regarding hospitals with tablet innovations. Thus, this study seeks to reveal how influencing the nurses' motivation in the completeness of the electronic medical record at Jember Pulmonary Hospital.

2. Materials and Methods

2.1 Research design, population, sample, and variables

This study was a correlational analysis study which utilized a cross-sectional design. There were two types of population in this study: the first population was all nurses who work at Jember Pulmonary Hospital with 105 nurses in total, and the second population was the Electronic Medical Record (hereafter, EMR) of the Jember Pulmonary Hospital database. The samples of this study were 48 nurses who worked at the inpatient unit of Jember Pulmonary Hospital and 240 files of EMR filled out by the nurses. The sampling technique in this study was conducted utilizing the purposive sampling technique. The independent variable of this study was nurses' motivation, while the dependent variable was the completeness of nursing care documentation in the EMR.

2.2 Instruments

The nurses' motivation questionnaire in this study was a modification of the [8] questionnaire. The questionnaire of this study comprised 29 questions employing a four-point Likert scale, with the score ranges of 29-57 as the lowest scores, 58-95 as the moderate scores, and 86-113 as the highest scores which indicated a better motivation.

This study utilized the standard questionnaire from the Ministry of Health [9] for the completeness of nursing care documentation, which included 17 questions. The results of the scoring answer "No" would be scored 0 and the answer "Yes" would be scored 1, with the lowest total score was 0 and the highest was 17. The assessment was not done once in one documentation, but was performed a total of five times in five documentations conducted by nurses with a maximum total score of 85. There was the nursing documentation regarding the relevant, essential, accurate, and complete patient clinical data starting from the patients being admitted to the hospital until being hospitalized. This questionnaire had a validity and reliability test with Cronbach's alpha score of 0.60.

2.3 Research procedures and analysis

The research passed the ethical review and was granted an Ethical Approval Certificate No. 01/KEPK/V/2019 by the Health Research Ethics Committee of Jember Pulmonary Hospital, Indonesia. The study was conducted by distributing the questionnaire to the nurses while examining and observing five documents from the electronic nursing documentation. The data were analyzed utilizing IBM SPSS Statistics 24, while the statistical analysis employed the Spearman rank test with alpha (α) = 0.05.

3. Results

Table 1. The Distribution of Nurses' Motivation at the Inpatient Unit of the Pulmonary Hospital

Motivation	Frequency (n)	Percentage (%)
Moderate	10	21
High	38	79
Total	48	100

Based on [Table 1], of the 48 nurses sampled in this study, 38 people (79%) had high motivation, and the remaining 21% had moderate motivation.

Table 2. The Distribution of Completeness of Nursing Care Documents at the Inpatient Unit of the Pulmonary Hospital

Completeness of Nursing Documents	Frequency (n)	Percentage(%)
Incomplete	5	10
Complete	43	90
Total	48	100

Based on [Table 2], of the 48 nurses sampled in this study, 43 people (90%) completed the nursing care documentation, while five others (10%) had the incomplete nursing care documentation.

Table 3. The Spearman Rank Correlation Test Analysis Results between Nurses' Motivation and Completeness of Nursing Care Documentation

Variable	Correlation	p-value
Correlation between nurses' motivation and completeness of nursing care documentation	0.665	0.000

$$r_{\text{table}} (n=48; \alpha=0.05) = 0.285$$

[Table 3] presents the analysis results of the relationship between nurses' motivation and the completeness of nursing care documentation. In [Table 3], the r-count value was 0.665 with a p-value of 0.000. The r-table value at free degrees ($n = 48$) for $\alpha = 0.05$ obtained a value of 0.285. If a comparison is made, the r-count was higher than r-table ($0.665 > 0.285$), or the p-value is smaller than 0.05 ($0.000 < 0.05$), indicating that it rejected H_0 or accepted H_a . It proved that there was a significant relationship between nurses' motivation and the completeness of nursing care documentation. The correlation coefficient of 0.665 was included in the strong category, meaning that the relationship between both variables was strong and significant. The higher motivation, the more likely the nurses are to complete the nursing care documentation, and vice versa.

4. Discussion

The results of this study are consistent with research conducted by Mediarti [10], in which she conducted the Chi-Square statistical test. The study discovered that nurses with a high motivation level had a complete documentation practice of 82.1% compared to nurses with a lower motivation level. This research results showed a p-value of 0.040 that was smaller than $\alpha 0.05$, which means that there was a significant relationship between nurses' motivation and nursing care documentation. The higher the nurses' motivation level, the better the completeness of nursing care documentation performed by nurses.

It is well known that motivation is divided into two types according to Herzberg's theory, namely intrinsic and extrinsic motivations. Extrinsic motivation is interpreted as a factor that removes obstacles or makes things easier [11]. This study found out the extrinsic motivation that influences nursing care documentation, namely the protection of nurses from legal issues and forms of EMR. When the nurses require legal protection, the EMR could be a helpful mean that was crucial to be completed. EMR was very handy for nurses in shortening the documentation time and facilitating nurses in recording the nursing care results. The conditions were in accordance with [7] in that the factors influencing motivation, such as time, facilities, management, and training, indeed had an impact on nursing care documentation [12].

Another motivation that encourages nurses to do documentation was intrinsic motivation, that is in the form of nurses' sense of responsibility in the nursing care documentation practice as well as the achievement and performance assessments. It was the most widely recognized motivation by nurses during the study. Responsibility was one of the character values that needs to be instilled in every human being to have the good personality [13]. In this case, the human being was a nurse who has an obligation to maintain the quality and standards of nursing care documentation. Whereas, for

achievement and performance evaluation, nurses had the desire for their work to be appreciated and expected an appreciation for work success. This situation was following Herzberg's theory, stating that rewards, such as achievement, responsibility, awareness, and interesting work, would generate good commitment. Motivation would show performance so that it can be referred to as work performance. Therefore, with good appreciation, the motivation to complete the documentation would be better [12]. In a previous study [14], from a cross-tabulation of the relationship between nurses' motivation and the implementation of nursing care documentation, 43 nurses who had intrinsic motivation carried out the complete nursing care documentation. In contrast, there were eight nurses implementing the incomplete nursing care documentation. Of the eight nurses, there were three people who had less intrinsic motivation, while the remaining five had good intrinsic motivation. The data indicated that the nurses who had intrinsic motivation tended to conduct the comprehensive nursing care documentation.

Other possible variables also had an indirect or even a strong connection to the completeness of nursing care documentation. Yet, in this study, motivation was the main factor that was strongly correlated with the completeness of nursing care documentation. Similar to the results of Widyaningtyas [5], motivation was the most dominant factor affecting nursing care documentation at the inpatient installation of Mardi Rahayu Kudus Hospital, in which motivation would encourage the nurses to be quicker and more serious in performing their activities [15]. Motivation also affected the achievement of optimal results that cause human to be more productive [16].

Motivation was the main key that determines the nurses' performance, in this case was the implementation of nursing care documentation. In practice, nurses must have a strong drive and will from within. If nurses did not have a good motivation, the implementation of nursing care documentation would not be achieved, and this could affect the quality of health services. Therefore, it was very important for nurses to know, understand, and maintain their motivation, for what they do in the documentation, and the results they obtain after doing it.

According to previous research, nursing documentation had a vital meaning and could be observed from various aspects. From a law perspective, it was regarded as a record of information about official clients and legal value. If there was misconduct related to the nursing profession, in which nurses were the service providers and clients were the service users, then nursing documentation could be used as an evidence at any time. Then, in terms of quality of service, the complete and accurate nursing documentation would facilitate the nurses to aid them in solving their clients' issues. This would improve the quality of nursing services. Also, from a communication aspect, nursing documentation was a recording device that could be used by nurses or other health practitioners as a mean of communication and a guideline in providing nursing care. From a finance perspective, nursing documentation could be of economic value; all nursing care could be utilized as a reference to calculate nursing costs for clients. Then, in terms of education, nursing documentation had educational value since it involved the chronology of nursing care activities that could be the learning material or references for students or the nursing profession. From a research aspect, nursing documentation had research value that contains information that could be a chart or object of research and development of the nursing profession. Finally, in terms of accreditation, nursing documentation could be used to see the nurses' roles and functions in providing nursing care to clients [9].

5. Limitation of the Study

The format of the instrument utilized in the study was adopted from the Ministry of Health (2005) to evaluate the completeness of the nursing care documentation. Thus, it is necessary to make adjustments to examine the assessment of data available in the EMR documentation owned by Jember Pulmonary Hospital.

6. Conclusion

This study concludes that nurses with good motivation can increase the percentage and completeness of electronic documentation of nursing care. It is recommended by the hospital to maintain the nurses' motivation better.

Acknowledgment

The authors would express their gratitude to all respondents, including the hospital management and nurses, who participated and assisted in this study during the data collection.

References

1. Matthews J, Bruflat C. ANA's Principles for Nursing Documentation. Maryland: Nursesbook.org; 2010.
2. Pribadi A. Analisis pengaruh faktor pengetahuan, motivasi, dan persepsi perawat tentang supervisi kepala ruang terhadap pelaksanaan dokumentasi asuhan keperawatan di ruang rawat inap RSUD Kelet Provinsi Jawa Tengah di Jepara. program Pascasarjana Universitas Diponegoro; 2009.
3. Braaf S, Manias E, Riley R. The role of documents and documentation in communication failure across the perioperative pathway. A literature review. *Int J Nurs Stud* [Internet]. 2011 Aug;48(8):1024–38. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S0020748911002215>
4. Nursalam. Manajemen Keperawatan Aplikasi dalam Praktik Keperawatan Profesional. 2nd ed. Jakarta: Salemba Medika; 2009.
5. Widyaningtyas KS. Analisis Faktor faktor yang Mempengaruhi Kepatuhan Perawat dalam Pendokumentasian Asuhan Keperawatan [Internet]. Universitas Diponegoro; 2010. Available from: <http://eprints.undip.ac.id/10502/>
6. Schnipper JL, Linder JA, Palchuk MB, Einbinder JS, Li Q, Postilnik A, et al. "Smart Forms" in an Electronic Medical Record: Documentation-based Clinical Decision Support to Improve Disease Management. *J Am Med Informatics Assoc* [Internet]. 2008 Jul 1;15(4):513–23. Available from: <https://academic.oup.com/jamia/article-lookup/doi/10.1197/jamia.M2501>
7. Wilcox L, Morris D, Tan D, Gatewood J. Using the electronic medical record to keep hospital patients informed. 2010;
8. Fitri N. Hubungan antara Motivasi Kerja dengan Kinerja Perawat di Instalasi Rawat Inap Rumah Sakit Umum Daerah (RSUD) Tugurejo Semarang [Internet]. Universitas Negeri Semarang; 2007. Available from: <https://lib.unnes.ac.id/4608/>
9. Department of Health Republic of Indonesia. Evaluation Instrument for Implementing Nursing Standards in Hospitals. Jakarta, Indonesia: Ministry of Health Republic of Indonesia Directorate General of Medical Services Directorate of Nursing and Medical Engineering; 2005.
10. Mediarti D. The relationship between nurses' motivation in documenting nursing care at the Intensive Care Installation of Palembang BARI Regional General Hospital in 2016. *J Unair*. 2016;
11. Purwanti ED. The completeness of nursing documentation and its characteristics in adult non-obstetric inpatient in RS Haji Jakarta 2012 [Internet]. Universitas Indonesia; 2012. Available from: <http://lib.ui.ac.id/abstrakpdf.jspdetail?id=20319949&lokasi=lokal>
12. Berthiana. Hubungan Motivasi Kerja Perawat Dengan Ketepatan Pengisian Dokumentasi Asuhan Keperawatan Di Ruang Rawat Inap RSUD Buntok 2012. *J Manaj Keperawatan*. 2012;1(1):111671.
13. Mustari M, Rahman MT. Nilai karakter: Refleksi untuk pendidikan karakter. Laksbang Pressindo; 2011.
14. Ioanna P, Stilianoi K, Vasiliki B. NURSING DOCUMENTATION AND RECORDING SYSTEMS OF NURSING CARE. *Heal Sci J*. 2007;(4).
15. Wahyuana P. Analisis Variabel yang Berhubungan dengan Pendokumentasian Asuhan Keperawatan di RS Krakatau Cilegon Tahun 2011. Universitas Indonesia; 2011.
16. Hasibuan MSP, Hasibuan HMSP. Manajemen sumber daya manusia. Bumi Aksara; 2016.