

Original Research

Development of A Nursing Care Documentation Module Based on SDKI, SLKI, SIKI (3S)



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Article Info	Abstract
<p>Article history: Received: 24 February 2025 Accepted: 27 April 2025</p>	<p><i>Introduction:</i> Nursing documentation is an important aspect of the nursing care workflow. Ineffective nursing documentation practices have been reported to impact patient outcomes and health worker efficiency negatively. Providing training for nurses will create positive attitudes and improve nurses' knowledge of nursing documentation. This study aimed to determine the effectiveness of documentation training based on SDKI, SLKI, and SIKI (3S) in improving independent practice nurses' documentation quality.</p>
<p>Keywords: nursing documentation, independent practice nurse, training</p>	<p><i>Methods:</i> The research design used in this study was a pre-experiment with a one-group pre-test-post-test design. The population consisted of independent practice nurses, and a sample size of 63 nurses was recruited using the total sampling technique. The instrument used is a checklist of nursing care documentation. The data analysis test uses the calculation of the Wilcoxon Paired test.</p> <p><i>Results:</i> The results showed that the quality of nursing documentation before the intervention was in the less good category at 77.8%, and the quality of documentation after the intervention was in the good category at 70.3%. Wilcoxon test results show a p-value of 0.000, indicating an effect of documentation training based on SDKI, SLKI, and SIKI (3S) on independent practice nurses' documentation quality.</p> <p><i>Conclusion:</i> Nursing care documentation training helps improve documentation practices in the nurses' independent practice area and improves the quality of nursing services.</p>

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INTRODUCTION

Nursing documentation is part of the last management function, namely supervision (controlling). Nursing documentation is a document that contains the patient's biopsychosocial-spiritual condition, all activities or actions carried out by nurses for patients from the time the patient comes to the hospital until the patient goes home [1]. Documentation is helpful as a communication tool between caregivers in planning client services, auditing health institutions, researching educational materials, reimbursement, legal documentation, and analysis of health services [2].

Documentation in nursing is the recording of the nursing process in the form of clinical information that helps meet legal practice standards in patient care [3]. Nurses play an important role in the care system and the process of regular documentation [4]. Clear, accessible, and accurate nursing documentation is essential to a quality, safe, and evidence-based nursing process. Poor documentation of the nursing process harms the quality of nursing services [5].

In Indonesia, nursing documentation is seen as important in providing quality care, but adequate nursing documentation is still a problem [6]. Moreover, there is no standardized documentation form for independent nursing practice. Primadilla's research (2022) explained the inadequacy of documentation in nurse-independent practice services at the Community Health Center, including incomplete form filling, inaccurate diagnoses, and nursing plans, most of which are only educational [7]. Nursing

documentation is essential for an effective and quality nursing process, yet studies show that nurses often fail to properly document the care they provide [8]. According to a study, there is evidence linking poor nursing documentation to patient mortality in healthcare institutions. The study revealed that nursing care documentation practices ranged from 37.4% to 48.6% [4].

Professional nurses who practice nursing in all settings at the independent practice, clinical practice, community, and hospital levels are responsible for the nursing documentation used following the reference standards of professional organizations [9]. Nurses play an important role in patient care; that they write determines the standard and quality of care provided to patients [10]. Poor documentation creates major problems when evaluating client care and is a major factor in influencing patient care outcomes. Ineffective documentation causes important issues, and in many cases, it is the leading cause of adverse patient events [11].

It is important to plan and intervene with various strategies, such as providing training for young nurses, nurses with low educational status, nurses working in primary hospitals, and nurses with less than two years of work experience regarding documentation standards, to create positive attitudes and improve nurses' knowledge [12]. Based on the available literature review, very few studies focus on independent practice nurses and more on the hospital home area. Based on the background, this study aims to determine the effectiveness of SDKI, SLKI, and SIKI (3S) based documentation training on

independent practice nurses' documentation quality.

METHODS

Study Design and Samples

The research design used in this study was a pre-experiment with a one-group pre-test-post-test design. The study was conducted on independent practice nurses with a sample size of 63 respondents. Nurses who participated in this study were nurses who opened independent practice services, were eligible to participate in this study, and were recruited using the total sampling technique.

Intervention

The intervention provided to nurses is nursing documentation training based on SDKI, SLKI, and SIKI (3S), which aims to improve the quality of nursing care documentation in independent practice. Nursing documentation training based on SDKI, SLKI, and SIKI (3S) was carried out in 2 days for 15 hours. This activity was guided by three facilitators and collaborated with the Commissariat Management of the Indonesian National Nurses Association of the Regency and region, and participants were provided with modules. Training activities for each material session are given for 5 hours and consist of 3 materials, namely standardization of nursing care SDKI, SLKI, SIKI, SDKI components, SLKI, SIKI, and SDKI preparation process. The module will contain standardized nursing care documentation specifically for independent practice nurses.

Instruments

The instrument used in this study is a standardized nursing care documentation checklist developed by the researchers themselves. It has been tested for validity and reliability involving 20 nurses, with results >870-957. This instrument was developed by researchers and a team of DPK PPNI nurses, lecturers, and independent nurse representatives. The basis for making this instrument is SDKI, SLKI, and SIKI.

Data Analysis

The data that has been obtained from the measurement results will be appropriately processed using the statistical package for the social sciences (SPSS) program version 21. The univariate test uses frequency distribution analysis and bivariate tests to determine the difference in the quality of nursing documentation before and after being given nursing documentation training based on SDKI, SLKI, and SIKI (3S) through the calculation of the Wilcoxon Paired test with the data scale is ordinal.

Ethical Consideration

The study obtained ethical eligibility from the Health Ethics Commission of the Faculty of Health Sciences, dr. Soebandi University with No: 112/KEPK/UDS/II/2024.

RESULTS

Univariate analysis was conducted to obtain an overview of the distribution, frequency, and proportion of variables, namely

demographic data and the quality of nursing documentation. The results of research conducted on 63 independent practice nurse respondents based on demographic data and the quality of nursing documentation can be presented in the following table: Based on the results of the study, it shows that most respondents were aged 36-45 years by 39.1% with the gender of male nurses by 62.5%. The highest education level is nursing undergraduate nurses (68.8%) and length of independent practice of nurses less than 5 years (68.8%).

The study results show that before being given 3S-based training (SDKI, SLIKI, SIKI),

most of the quality of nursing care documentation was in the fair category (77.8%). After being given a 3S-based training intervention (SDKI, SLIKI, SIKI) showed that most of the quality of nursing care documentation was in a good category (70.3%).

The Wilcoxon Rank Test statistical test results showed a p-value = 0.000. The test results show an effect of 3S-based nursing documentation training based on SDKI, SLKI, and SIKI (3S) on the quality of nursing documentation.

Table 1
Frequency Characteristics of Respondents

Characteristics	Frequency	Percentage
Age		
17-25 years	2	3.1
26-35 years	20	31.2
36-45 years	24	39.1
46-55 years	14	21.9
56-65 years	2	3.1
>65 years	1	1.6
Gender		
Male	40	62.5
Female	23	37.5
Total	63	100.0
Education		
Ners	44	68.8
Diploma	19	31.2
Length of Work		
> 10 years	19	31.2
≤ 5 years	44	68.8
Total	63	100.0

Table 2

Quality Of Nursing Documentation Before-After 3S-Based Training (SDKI, SLKI, SIKI) In Nurses' Independent Practice Settings

Quality of Nursing Documentation Before		
Category	Frequency	Percentage
Good Quality	5	7.9%
Fair Quality	49	77.8%
Poor Quality	9	14.3%
Quality of Nursing Documentation After		
Good Quality	44	70.3
Fair Quality	14	21.9
Poor Quality	5	7.8
Total	63	100.0

Table 3

Statistical Test Of The Effect of 3S-Based Training (SDKI, SLKI, SIKI) On The Quality Of Nursing Care Documentation In Nurses' Independent Practice Settings

Group	Z	Asymp. Sig. (2-tailed)
Experimental Group Wilcoxon Test	-4.472 ^b	.000

DISCUSSION

The results showed that before being given training in SDKI, SLKI, and SIKI-based objection documentation, most of the quality of nursing care for independent nurses was in the poor category. This is because nurses do not have experience in SDKI, SLKI, SIKI nursing care documentation. However, there was an increase in the quality of nursing care after training on SDKI, SLKI, and SIKI-based objection documentation, where most independent nurses had documented nursing care correctly and appropriately. Independent practical nurses are allowed to learn independently by being guided by the technical modules of SDKI, SLKI, and SIKI-based nursing care documentation provided

so that there is a continuity of learning processes that not only occur in training activities. Still, they are continued independently at the residence of each nurse.

The lack of nursing care documentation in nurses' independent practice in this study was due to differences in nurses' knowledge and attitudes towards nursing documentation, lack of training on documentation, and the participating nurses were more familiar with the documentation guidelines available in the hospital [13]. Their exposure to training opportunities may have been expanded, which would have familiarized them with operational guidelines for nursing documentation [14].

Understanding the operational standards of nursing documentation has a significant and positive relationship. This finding is consistent with research conducted in [15]. This may be because understanding the operational standards of nursing documentation can make documentation tasks easy, fast, and interesting for nurses [16].

Following standardized training on nursing documentation has a positive relationship [17]. This finding is comparable to a study conducted by Kebede (2017) where training can increase their familiarity with standard operating documentation, improve their attitude towards documentation and value in documenting nursing care [18]. Training on nursing care documentation helps improve documentation practices [19].

Attending standardized training on nursing documentation has a positive relationship [20]. This finding is comparable to a study conducted by Kebede (2017) where training can increase their familiarity with documentation operational standards, improve their attitude towards documentation and value in documenting nursing care [18]. Training in nursing care documentation helps to improve documentation practices [21].

The interesting thing about this study is the perceived difficulty in terms of terminology [22]. They had difficulty adapting the terminology used in the Intervention Standards published by PPNI [23]. To achieve high-quality nursing documentation, it is necessary to pay attention to standardized terminology, user-friendly formats, and systems [24]. This phenomenon can be

related to the ability to understand the language used in the standard [25]. Although most participants have completed their professional studies, the introduction of terminology and the application of 3S standards (SDKI, SLKI, SIKI) has not occurred during their college days [26].

The independent practicing nurses reported in this study showed that nurses documented the patient's health status, nursing needs, nursing care, and responses to nursing care in writing. The exposure of lone nurses to training can be increased so that nurses are familiar with the operational documentation standards. Training on nursing care documentation increased nurses' positive attitudes towards documentation. In the future, continuous documentation training can be carried out to improve the quality of service of independent practice nurses.

CONCLUSION

Based on the results and data analysis, we can conclude that SDKI, SLKI, and SIKI (3S) based nursing care documentation training is proven to affect the quality of nursing care for nurses with independent practice.

LIMITATION

The study lacked the implementation of a control group for comparative analysis, and the author did not employ randomization in the experimental design. To enhance the validity and robustness of future research, it is imperative to incorporate a control group procedures. This would facilitate the execution of a randomized controlled trial

(RCT), thereby ensuring methodological rigor and minimizing potential biases. Further research is needed to determine what constitutes quality nursing documentation and the best way to measure nursing documentation.

IMPLICATION

Quality in nursing documentation promises to improve patient safety and quality of care. High-quality nursing documentation describes comprehensive documentation of the nursing process and nursing records. The documentation training provides enlightenment on the documentation of nursing care by referring to the 3S so that the documentation carried out is updated according to standards. The training activities in this study proved to be able to improve the quality of independent nurses in documenting nursing care, which has a positive impact on the quality of nursing care delivery.

CONFLICT OF INTEREST

We declare that we have no conflicts of interest to disclose.

REFERENCES

- [1] D. Nellisa, M. Mahdarsari, M. Program Studi Profesi Ners, F. Keperawatan Universitas Syiah Kuala Banda Aceh, and B. Keilmuan Keperawatan Manajemen, "Pendokumentasian Keperawatan Di Ruang Rawat Inap Rumah Sakit Nursing Documentation In Hospital Inpatient Rooms."
- [2] A. , Snyder. S. & F. G. Berman, *Kozier & Erb's Fundamentals on Nursing*. USA: Pearson Education., 2016.
- [3] L. G. N. S. Wahyuningsih, N. D. Susanti, and I. M. R. Mahardika, "Analysis of Nurse Performance in Improving the Quality of Hospital Services," *Babali Nursing Research*, vol. 5, no. 1, pp. 188–195, Jan. 2024, doi: 10.37363/bnr.2024.51341.
- [4] G. N. Bolado, T. L. Ayalew, M. G. Feleke, K. E. Haile, and T. Geta, "Documentation practice and associated factors among nurses working in public hospitals in Wolaita Zone, Southern Ethiopia," *BMC Nurs*, vol. 22, no. 1, Dec. 2023, doi: 10.1186/s12912-023-01490-8.
- [5] O. A. de Azevedo, É. de Souza Guedes, S. A. Neves Araújo, M. M. Maia, and D. de A. L. M. da Cruz, "Documentation of the nursing process in public health institutions," *Revista da Escola de Enfermagem*, vol. 53, 2019, doi: 10.1590/S1980-220X2018003703471.
- [6] H. Kamil, R. Rachmah, and E. Wardani, "What is the problem with nursing documentation? Perspective of Indonesian nurses," *Int J Afr Nurs Sci*, vol. 9, pp. 111–114, Jan. 2018, doi: 10.1016/j.ijans.2018.09.002.
- [7] H. Primadilla, "Pemanfaatan m-Health Berbasis Kebutuhan Sistem Informasi pada Upaya Perkesmas: Kasus TBC," *Journal of Telenursing (JOTING)*, vol. 4, no. 1, pp. 225–236, Apr. 2022, doi: 10.31539/joting.v4i1.3452.
- [8] K. F. Abdallah, M. N. Ebraheim, M. Rabea, and A. A. Elbakry, "Nurses' Performance toward Quality Documentation for

- Patients in ICU: Suggested Guidelines," 2020.
- [9] T. Tamir, B. Geda, and B. Mengistie, "Documentation practice and associated factors among nurses in harari regional state and dire dawa administration governmental hospitals, eastern ethiopia," *Adv Med Educ Pract*, vol. 12, pp. 453–462, 2021, doi: 10.2147/AMEP.S298675.
- [10] S. Ayele, T. Gobena, S. Birhanu, and T. A. Yadeta, "Attitude Towards Documentation and Its Associated Factors Among Nurses Working in Public Hospitals of Hawassa City Administration, Southern Ethiopia," *SAGE Open Nurs*, vol. 7, 2021, doi: 10.1177/23779608211015363.
- [11] M. Asmirajanti, A. Y. S. Hamid, and R. T. S. Hariyati, "Nursing care activities based on documentation," *BMC Nurs*, vol. 18, Aug. 2019, doi: 10.1186/s12912-019-0352-0.
- [12] S. Yadav, "Embracing Artificial Intelligence: Revolutionizing Nursing Documentation for a Better Future," *Cureus*, Apr. 2024, doi: 10.7759/cureus.57725.
- [13] K. De Groot, A. J. E. De Veer, W. Paans, and A. L. Francke, "Use of electronic health records and standardized terminologies: A nationwide survey of nursing staff experiences," *Int J Nurs Stud*, vol. 104, Apr. 2020, doi: 10.1016/j.ijnurstu.2020.103523.
- [14] K. De Groot, M. Triemstra, W. Paans, and A. L. Francke, "Quality criteria, instruments, and requirements for nursing documentation: A systematic review of systematic reviews," Jul. 01, 2019, *Blackwell Publishing Ltd*. doi: 10.1111/jan.13919.
- [15] A. L. Cooper, J. A. Brown, S. P. Eccles, N. Cooper, and M. A. Albrecht, "Is nursing and midwifery clinical documentation a burden? An empirical study of perception versus reality," *J Clin Nurs*, vol. 30, no. 11–12, pp. 1645–1652, Jun. 2021, doi: 10.1111/jocn.15718.
- [16] N. L. G. H. Nugrahini, I. G. P. D. Suyasa, I. K. A. Adianta, and N. K. T. Agustini, "The Impact of Implementing the Modular Professional Nursing Practice Model on Nurse Work Motivation at Unicare Clinic Bali," *Babali Nursing Research*, vol. 5, no. 3, pp. 524–537, Jul. 2024, doi: 10.37363/bnr.2024.53387.
- [17] T. G. Hardido, B. D. Kedida, and E. Kigongo, "Nursing Documentation Practices and Related Factors in Patient Care in Ethiopia: A Systematic Review and Meta-Analysis," *Adv Med*, vol. 2023, pp. 1–8, Nov. 2023, doi: 10.1155/2023/5565226.
- [18] M. Kebede, Y. Endris, and D. T. Zegeye, "Nursing care documentation practice: The unfinished task of nursing care in the University of Gondar Hospital," *Inform Health Soc Care*, vol. 42, no. 3, pp. 290–302, Jul. 2017, doi: 10.1080/17538157.2016.1252766.
- [19] U. M. Jeanifer, A. S. Mediawati, and I. Somantri, "Effect of the SDKI, SLKI, and SIKI Education Program on Nurses' Attitudes on Nursing Documentation," *JMMR (Jurnal Medicoeticolegal dan Manajemen Rumah Sakit)*, vol. 12, no. 3,

- pp. 283–299, Dec. 2023, doi: 10.18196/jmmr.v12i3.88.
- [20] S. M. Hasan and A. Mulyanto, “The Effect Of Using SDKI And Wilkinson Book On The Accuracy Level Of Nursing Diagnosis by Poltekkes Palu Nursing Student,” *Lentora Nursing Journal*, vol. 3, no. 1, Oct. 2022, doi: 10.33860/lmj.v3i1.2054.
- [21] P. S. Moldskred, A. K. Snibsøer, and B. Espehaug, “Improving the quality of nursing documentation at a residential care home: a clinical audit,” *BMC Nurs*, vol. 20, no. 1, Dec. 2021, doi: 10.1186/s12912-021-00629-9.
- [22] M. A. Yuwanto and E. E. Astutik, “Indonesian Nursing Standards Training (Diagnosis, Outcomes and Interventions) for Nursing Documentation,” 2024. [Online]. Available: <https://blambangan-scholar.com/index.php/BJCS>
- [23] R. Purwandari, D. E. Kurniawan, and S. K. Kotimah, “Nursing Documentation in Accredited Hospital,” *Jurnal Keperawatan Indonesia*, vol. 25, no. 1, pp. 42–51, Mar. 2022, doi: 10.7454/jki.v25i1.1139.
- [24] M. A. Yuwanto and R. E. Prasetyo, “The Effect of Nursing Care Documentation Training Based on Indonesian Nursing Standards,” 2023. [Online]. Available: <http://ejournal.poltekkes-smg.ac.id/ojs/index.php/jnj/about/submissions#authorGuidelines>
- [25] N. Hidayati, E. Aldianti, A. A. Hanafi, and N. Phutthikhamin, “Nursing Diagnoses in Acute Stroke Patients at the Emergency Department,” *Babali Nursing Research*, vol. 5, no. 4, pp. 669–685, Oct. 2024, doi: 10.37363/bnr.2024.54412.
- [26] S. Muharni, U. Christya Wardhani, and R. Hanjani, “Pengenalan 3S (SDKI, SLKI, SIKI) dalam Pendokumentasian Asuhan Keperawatan,” *Jurnal Abdidas*, vol. 5, no. 4, 2024, doi: 10.31004/abdidas.v5i4.954.