

The Relationship Between Nurse Competence and the Implementation of Patient Safety at Muhammadiyah Hospital Palembang

Cindy Aulia Tarmizi^{1,a,*}; Romiko^{2,a}; Sri Yulia^{3,a}

^{1,2,3,5} Program Studi Ilmu Keperawatan, Universitas Muhammadiyah Ahmad Dahlan Palembang, Indonesia

^a cindyauliatarmizi@gmail.com; ^a ns.romiko@gmail.com; ^a mylia_sriplg@gmail.com

Article history: Received Month april 28, 2026; Revised April 28, 2026; Accepted April 30, 2026

Abstract

Background: Competent nurses with specialized knowledge and skills are essential for the effective implementation of patient safety protocols. High competence minimizes medical errors and malpractice, ensuring a secure environment for patients. **Objective:** This study aimed to analyze the relationship between nurse competence and the implementation of patient safety at Muhammadiyah Hospital Palembang. **Method:** A cross-sectional design was employed, involving 52 nurses from various inpatient wards (ICU, Pediatric, Internal Medicine, and Surgery). Participants were selected using a purposive sampling technique. Data were collected through validated questionnaires and analyzed using univariate and bivariate (Chi-square) statistics. **Results:** The findings indicated that a majority of nurses possessed high competence (58.8%) and demonstrated good patient safety implementation (62.7%). Statistical analysis yielded a p-value of 0.003 ($p < 0.05$), indicating a significant correlation. **Conclusion:** There is a significant relationship between nurse competence and patient safety implementation. Hospitals should prioritize continuous competency development to maintain and enhance safety standards.

Keywords: Nursing Competence, Patient Safety, Inpatient Nursing

1. Introduction

According to Law of the Republic of Indonesia Number 17 of 2023 concerning Health, Article 199 paragraph 1 states that nursing personnel are included in the category of health workers. Furthermore, Article 1 paragraph 7 explains that health workers are individuals who dedicate themselves to the health sector with a professional attitude and possess knowledge and skills acquired through higher education. Some types of work in this field also require specific authorities to provide health services.

Nurses are required to possess adequate skills to become competent professionals. Nurses today need to master knowledge and skills in various fields in line with the increasing demand for healthcare services. The challenges faced by nurses are now broader, focusing on improving health and preventing disease through a holistic approach to patients. Nurses must continuously improve their competency, both in knowledge and skills, to provide quality care, make appropriate clinical decisions, and create a safe environment for patients to avoid potential adverse side effects. Furthermore, nurses also play a role in providing comfort and emotional support, as well as empowering patients during the healing process. They must be

skilled at communicating with patients and their families, as well as collaborating with fellow nurses and other healthcare professionals. Competent nurses also play a role in providing patient education, thereby encouraging behavioral changes that accelerate the healing process (Nopriyanti, 2023).

Decree of the Minister of Health of the Republic of Indonesia No. HK.01.07/MENKES/425/2020 concerning nursing professional standards stipulates that nurses must be able to practice nursing services based on ethics, legality, and cultural sensitivity. Furthermore, nurses must also possess professional practice skills based on nursing science. Nurses must have the ability to practice nursing care management and nursing service management. They must also be able to practice nursing education and nursing research. Nurses must have the ability to develop personal and professional qualities. Nurses are responsible for their patients with their great abilities, so all nurses who practice their profession ensure that they must have a high level of competence. Competent nurses certainly have good knowledge and skills in serving patients, so that patients feel safe and minimize the risk of harm, such as errors that occur during medical procedures.

Nurses are said to lack competence if they have limited clinical knowledge and experience. Furthermore, nurses face difficulties adapting to practical skills and new technologies in the nursing field to provide optimal care to patients (Novriani & Wijayanti, 2024). A lack of nurse confidence can cause numerous problems and prevent nurses from caring for patients quickly and effectively. This situation is particularly dangerous when nurses face situations where they need certain skills but lack the knowledge and skills (Rembet, 2023).

Patient safety is the result of the services provided by healthcare workers, including nurses, and the quality of healthcare services, particularly in hospitals. Therefore, patient safety must be a top priority in hospital care. Nurses are the staff members who interact most frequently with patients. Given the breadth of their responsibilities, nurses are vulnerable to errors in care. Therefore, the competence and commitment of nurses are crucial to building a culture that prioritizes patient protection.

According to Law of the Republic of Indonesia Number 17 of 2023 concerning Health, Article 57 Paragraph 2 states that patient safety is a framework encompassing organized activities. The purpose of this framework is to establish a culture, processes, procedures, behaviors, technology, and environment that support safe healthcare services. The primary goal is to reduce risks, avoid preventable harm, and minimize the impact of incidents on patients.

Nurses, in providing nursing care to patients, must be able to avoid various types of errors in a safer manner. In patient safety, nurses need to have adequate skills to handle various incidents and implement effective solutions to reduce the risks faced by patients (Zarui et al., 2021). Patient safety also plays a role in preventing errors that occur, both due to erroneous actions and due to actions that should have been taken but were not carried out (Salawati, 2020). During the implementation of health services, various risks are possible. These risks include errors in the transfusion process, side effects from drug use, errors that can occur during surgery, and other problems such as infections related to hospital care, falls, burns, pressure ulcers, and errors in patient identification (Butar, 2020).

2. Research Method

This study used a cross-sectional approach with a sample of 51 nurses working in the inpatient wards (ICU, Pediatric, PDL, Surgical) at Muhammadiyah Hospital Palembang, taken using a purposive sampling technique. Analysis was performed through univariate with proportion and central tendency tests, and bivariate with Chi-Square tests. Data collection used a nurse competency questionnaire and a patient safety implementation questionnaire.

3. Result and Discussion

Result

Table 1. Distribution of Nurses at Muhammadiyah Hospital Palembang

Variable	Frequency (f)	Percentage (%)
Gender		
Male	5	9,8
Female	46	90,2
Education Level		
D3 Nursing Ners	38	74,5
Ners	13	25,5
Work Unit		
Ahmad Dahlan	17	33,3
ICU	14	27,5
Ibnu Rusyid	11	21,6
Rasyid Thalib	9	17,6
Employee Status		
Permanent	51	100,0
Non-permanent	0	0,0
Marital Status		
Married	51	100,0
Not Married	0	0,0

Based on table 1 above, it shows that the majority of respondents are female with a total of 46 people (90.2%), while male respondents number 5 people (9.8%). Based on education level, respondents with D3 nursing education number 38 people (74.5%), respondents with Ners education number 13 people (25.5%). Based on work units, respondents who work in the Ahmad Dahlan unit number 17 people (33.3%), the ICU unit number 14 people (27.5%), the Ibnu Rusyid unit number 11 people (21.6%), and the Rasyid Thalib unit number 9 people (17.6%). Based on employment status, all respondents remain with a total of 51 people (100.0%). Based on marital status, all respondents are married with a total of 51 people (100.0%).

Table 2. Distribution of Nurses Based on Age and Length of Service of Nurses at Muhammadiyah Hospital Palembang

Variable	N	Mean	SD	Min-Max
Age	51	38,67	3,824	28-48
Working Period	51	13,06	3,171	5-18

Based on Table 2 above, it shows that the average age of 51 nurses is 38.67 years with a minimum age of 28 years and a maximum of 48 years. While the average length of service of 51 nurses is 13.06 years with a minimum length of service of 5 years and a maximum of 18 years.

Table 3. Competence of Nurses at Muhammadiyah Hospital Palembang

Nurse Competence	Frequency (f)	Percentage (%)
High	42	82,4
Low	9	17,6
Total	51	100,0

Based on Table 3 above, it can be seen that 42 respondents (82.4%) have high nursing competency, while 9 respondents (17.6%) have low competency.

Table 4. Implementation of Patient Safety at Muhammadiyah Hospital Palembang

Implementation of Patient Safety	Frequency (f)	Percentage (%)
Good	28	54,9
Not good	23	45,1
Total	51	100,0

Based on Table 4 above, it can be seen that 28 respondents (54.9%) implemented good patient safety, while 23 respondents (45.1%) implemented poor patient safety.

Table 5. The Relationship between Nurse Competence and the Implementation of Patient Safety at Muhammadiyah Hospital Palembang (n = 51)

Kompetensi Perawat	Penerapan Keselamatan Pasien				Total		P Value
	Baik		Kurang		N	%	
	N	%	N	%			
Tinggi	28	54,9	14	27,5	42	82,4	0.001
Rendah	0	0,0	9	17,6	9	17,6	
Total	28	54,9	23	45,1	51	100,0	

Based on Table 5 above, it shows that nurses' competence is high and the implementation of patient safety is good as many as 28 people (54.9%), while high competence and poor implementation of patient safety are 14 people (27.5%). Nurses' competence is low and the implementation of patient safety is poor as many as 9 people (17.6%). The results of statistical tests using the chi square test show that the fisher's exact test value is 0.001, which means that there is a relationship between nurse competence and the implementation of patient safety at the Muhammadiyah Hospital in Palembang.

Discussion

The results of the study showed a positive and significant relationship between nurse competence and patient safety implementation at Muhammadiyah Hospital Palembang, with a p-value of 0.001 < 0.05. This indicates that higher nurse competence improves patient safety implementation in the hospital. This capability enables nurses to work more confidently and effectively to ensure patient safety.

Competence is a crucial element supporting the provision of high-quality nursing care, which impacts patient safety. With good nurse performance, standardized nursing practices can be implemented, thereby minimizing the risk of medical errors. Effective nurse communication is also

crucial for improving patient safety. Good communication between nurses and patients not only enhances the therapeutic relationship but also ensures that patients' needs and expectations are met. This results in positive patient experiences and improves patient safety. Nurses' competence in patient safety implementation enables them to identify threats, implement safety procedures, and take preventive measures (Hikmah et al., 2024).

This study aligns with research conducted by Rizany et al. (2021), which found a positive relationship between nurse competence and patient safety. This means that the higher the nurse's competency, the greater their understanding of patient safety. Subsequent research by Hutapea et al. (2021) demonstrated a relationship between nurse competency and patient safety implementation.

The results of this study indicate that nurse competency significantly supports nursing actions in implementing patient safety. This is because nurses possess strong skills and competencies in performing nursing actions. Nurses understand what to do with patients in accordance with patient safety goals during nursing actions. All patient safety actions can be carried out effectively if nurses possess high competency. Furthermore, with high competency, nurses can take preventative measures and better evaluate patient conditions. High nurse competency will be followed by increased nurse actions in patient safety.

Nurse competency is a crucial factor in decision-making, but competency does not always prevent undesirable incidents. For example, nurses with high competency in patient safety may not always implement SOPs properly. All actions carry the risk of error. Therefore, supervision, evaluation, training, and nurse regeneration are necessary to mitigate this risk.

4. Conclusion

Based on the research findings on the relationship between nurse competency and patient safety implementation at Muhammadiyah Hospital Palembang, the following conclusions can be drawn.

1. Nurse competency was high (82.4%) and low (17.6%), indicating that the majority of nurses had high competency.
2. Patient safety implementation was good (54.9%) and poor (45.1%), indicating that only a small proportion of nurses implemented patient safety effectively.
3. The relationship between nurse competency and patient safety was positive

Acknowledgments

The author would like to thank Muhammadiyah Hospital Palembang and all respondents who helped with this research process.

Reference List

- Achmad, I. (2018). Nurse Competence and Patient Safety in Piru Hospital Seram Bagian Barat District. *Jurnal Poltekes Maluku*, 9(2), 77–86.
- Adams, M., & Brown, R. (2018). "Linking Nursing Competence with Patient Outcomes: A Systematic Review." *Healthcare*, 6(2), 45-56.
- Adiwangsa, E. J. (2023). *Pertanggungjawaban Pidana Perawat Dalam Kelalaian Pemberian Obat Terhadap Pasien*. 12(3), 349–357.
- Almarwani AM, Alzahrani NS. Factors affecting the development of clinical nurses' competency: A systematic review. *Nurse Educ Pract*. 2023 Nov;73:103826. doi: 10.1016/j.nepr.2023.103826. Epub 2023 Nov 2. PMID: 37951064..
- Anggreni, D. (2022). *Penerbit STIKes Majapahit Mojokerto buku ajar*.
- Asmaningrum, Nurfika dan Dodi, Wijaya dan Anisah, Ardiana dan Retno, Purwandari *Buku Ajar Manajemen Keperawatan*. Dalam: Buku Ajar Manajemen Keperawatan. Literasi Nusantara, hal.1-278. ISBN 978-623-114-158-3

- Azyabi, A., Karwowski, W., Hancock, P., Wan, T. T. H., & Elshennawy, A. (2022). Assessing Patient Safety Culture in United States Hospitals. *International Journal of Environmental Research and Public Health*, 19(4). <https://doi.org/10.3390/ijerph19042353>
- Butar, C. B. (2020). Permasalahan Yang Terjadi Di Rumah Sakit Terkait Keselamatan Pasien. *Manajemen Patient Safety*, 1(11), 1–9. file:///C:/Users/DJPb/Downloads/PERMASALAHAN YANG TERJADI DI RUMAH SAKIT TERKAIT KESELAMATAN PASIEN.pdf
- Cowan, D. T., Wilson-Barnett, J., Norman, I. J., & Murrells, T. (2018). Measuring nursing competence: Development of a self-assessment tool for general nurses across Europe. *International Journal of Nursing Studies*, 45(6), 902-913.
- Fauzy, A. (2019). Metode Sampling. In *Universitas Terbuka* (Vol. 9, Issue 1). <http://jurnal.globalhealthsciencegroup.com>
- Galleryzki, A. R., Prabarini, L. P., Jainurakhma, J., & Fanani, Q. (2022). Implementasi Enam Sasaran Keselamatan Pasien Oleh Perawat Di Masa Pandemi Covid-19. *BIMIKI (Berkala Ilmiah Mahasiswa Ilmu Keperawatan Indonesia)*, 10(1), 18–26. <https://doi.org/10.53345/bimiki.v10i1.233>
- Ghofar, A., Zuliani, Z., & Ukhrowi, WB (2022). Manajemen Keselematan Pasien dalam Meningkatkan Mutu Pelayanan Pasien. *Jurnal Keperawatan*, 14 (1), 79–86. <https://doi.org/10.32583/keperawatan.v14i1.32>
- Gloria, J. T. (2020). Peran Perawat Dalam Menerapkan Sasaran Keselamatan Pasien Di Rumah Sakit. 2020, 181101080, 1–34.
- Gunawan, C., (2020). *Mahir Menguasai SPSS Panduan Praktis Mengolah Data Penelitian New Edition : Buku Untuk Orang Yang (merasa) Tidak Bisa Dan Tidak Suka Statistika / Penulis. 2020*
- Hikmah, D. N., Gunardi, W. D., & Fushen, M. H. (2024). Pengaruh Kompetensi dan Komunikasi Perawat terhadap Kepuasan Pasien dengan Kinerja Perawat Sebagai Variabel Mediasi. *YUME: Journal of Management*, 7(1), 337-344. <https://journal.stieamkop.ac.id/index.php/yume/article/view/6347>
- Hutapea, L. R., Wardhani, U. C., & Muharni, S. (2021). Faktor-faktor yang mempengaruhi kompetensi perawat dalam melaksanakan keselamatan pasien di rawat inap rumah sakit BP Batam. *Initium Medica Journal*, 1(2), 1–6.
- Ibnu, S. (2022). Metodologi Penelitian. *Widina Bhakti Persada Bandung*, 12–26.
- Ilkafah. (2021). Pentingnya Menerapkan Prinsip Etik pada Tindakan Keperawatan. <https://www.jphres.org/index.php/jphres/article/view/2211>
- Jones, L., & Cooper, K. (2022). "Portfolio Assessment for Nursing Competence: A Comprehensive Review." *Journal of Advanced Nursing*, 78(2), 322-330.
- Kartini. (2022). konsep manajemen keperawatan. *Universitas Nusantara PGRI Kediri*, 01, 1. <https://repository.penerbiteureka.com/media/publications/559373-konsep-manajemen-keperawatan-73c71ad4.pdf>
- Kemendes RI. Undang-Undang Republik Indonesia Nomor 17 Tahun 2023 Tentang Kesehatan. Jakarta : Kementerian Kesehatan Republik Indonesia ; 2023.
- Kementerian Kesehatan RI. (2017). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 11 Tahun 2017 Tentang Keselamatan Pasien*. Jakarta: Kementerian Kesehatan RI; 2017.
- Kementerian Kesehatan. (2022). *Keputusan Menteri Kesehatan Republik Indonesia No HK.01.07/MENKES/1128/2022 tahun 2022 tentang Standar Akreditasi Rumah Sakit*
- Kementerian Kesehatan. (2020). *Keputusan Menteri Kesehatan Republik Indonesia Nomor HK.01.07/MENKES/425/2020 tentang Standar Profesi Perawat*.
- Kurniadi, Z., M. Noer, R., & Suangga, F. (2023). Faktor “ Faktor Yang Mempengaruhi Keselamatan Pasien Oleh Perawat Di Rumah Sakit X Di Tanjungpinang. *Warta Dharmawangsa*, 17(4), 1473–1481. <https://doi.org/10.46576/wdw.v17i4.3802>
- Kurniawan, H. (2020). *Patient Safety and International Patient Safety Goals (IPSGS) in The Field of*

- Respirology*. Indonesian Journal of Chest, 7(1), 7–10.
- Lee, J., & Kim, H. (2020). "Self-Assessment and Peer Review in Nursing Competence Evaluation." *International Nursing Review*, 67(3), 456–464.
- Marquis, B. L., & Huston, C. J. (2017). *Leadership Roles and Management Functions in Nursing: Theory and Application* (9th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.
- Mrayyan, M. T., Abunab, H. Y., Abu Khait, A., Rababa, M. J., Al-Rawashdeh, S., Algunmeeyn, A., & Abu Saraya, A. (2023). Competency in nursing practice: A concept analysis. *BMJ Open*, 13(6), 1–8. <https://doi.org/10.1136/bmjopen-2022-067352>
- Muliyadi, M., & Yulia, S. (2022). Penerapan Sasaran Keselamatan Pasien Di Pelayanan Rumah Sakit. *Jurnal Aisyiyah Medika*, 7(2). <https://doi.org/10.36729/jam.v7i2.858>
- Mulyani, A. W., & Kusumawardhani, O. B., (2023). Pengetahuan Perawat Terhadap Insiden Keselamatan Pasien : Literature Review. *Prosiding Seminar Informasi Kesehatan Nasional (SIKESnas)*, 1–5.
- Ningsih, N. S., & Endang Marlina. (2020). Pengetahuan Penerapan Keselamatan Pasien (Patient Safety) Pada Petugas Kesehatan. *Jurnal Kesehatan*, 9(1), 59–71. <https://doi.org/10.37048/kesehatan.v9i1.120>
- Notoatmodjo, S. 2018, Metodologi Penelitian Kesehatan, Jakarta: Rineka Cipta.
- Novriani, A., & Wijayanti, C. D. (2024). Pengaruh Penerapan Kepemimpinan Klinis Terhadap Kompetensi Perawat Di Rumah Sakit: Kajian Literatur [the Effect of Clinical Leadership Implementation on Nurse Competence in Hospitals: a Literature Review]. *Nursing Current: Jurnal Keperawatan*, 12(1), 96. <https://doi.org/10.19166/nc.v12i1.8048>
- Nugraha, A. T., Kalsum, U., Rahmawati, D. R., Imu, P., Fakultas, K., Kesehatan, I., & Indonesia, U. R. (2024). Kompetensi Perawat Berhubungan Dengan Manajemen Nyeri Pada Pasien Post Operasi. *Jurnal Aisyiyah Medika*, 9(1), 1–136.
- Pratiwi, Y. (2022). Korelasi penerapan keselamatan pasien dengan kepuasan pelayanan anak di RS Bhayangkara Makassar. *Journal of Economic Perspectives*, 2(1), 1–4. <http://www.ifpri.org/themes/gssp/gssp.htm%0Ahttp://files/171/Cardon - 2008 - Coaching d'equipe.pdf%0Ahttp://journal.um-surabaya.ac.id/index.php/JKM/article/view/2203%0Ahttp://mpoc.org.my/malaysian-palm-oil-industry/%0Ahttps://doi.org/10.1080/23322039.2017>
- Rembet, Y. I., Wijayanty., C. D., & Susilo, W. H. (2023). Pengaruh pelatihan self-leadership terhadap clinical leadership competency perawat pelaksana di dua rumah sakit umum swasta tipe c provinsi sulawesi utara. *Aksara: Jurnal Ilmu Pendidikan Nonformal*, 9(1), 421–436. <https://ejournal.pps.ung.ac.id/index.php/Aksara/article/view/1665/0>
- Rizany, I., Pertiwiwati, E., Setiawan, H., Jumbri, M., Rahmaniah, L., & Rahman, M. R. (2021). Kompetensi perawat terhadap Keselamatan Pasien di Beberapa Rumah Sakit Pinggiran Sungai Aliran Barito. *Dunia Keperawatan: Jurnal Keperawatan Dan Kesehatan*, 9(2), 319. <https://doi.org/10.20527/dk.v9i2.11946>
- Sahir, Syafrida. H. 2022. Metodologi Penelitian.(Ed. Pertama).Yogyakarta: KBM Indonesia.
- Salawati, L. (2020). Penerapan Keselamatan Pasien Rumah Sakit. *AVERROUS: Jurnal Kedokteran Dan Kesehatan Malikussaleh*, 6(1), 98. <https://doi.org/10.29103/averrous.v6i1.2665>
- Sitinjak L, Tola B, Ramly M. Evaluasi standar kompetensi perawat indonesia dengan menggunakan model CIPPO menuju revolusi industri 4.0. pertama. jakarta selatan: lembaga penerbitan universitas nasional (LPU-UNAS); 2019.
- Smith, T. R., & McCarthy, M. (2019). "Direct Performance Assessment in Nursing: The Role of Supervisor Feedback." *Journal of Nursing Management*, 27(4), 123–131.
- Sugiyono. (2018). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.
- Syafawani, N. A. (2020). *Pentingnya Pengetahuan Pada Perawat Tentang Keselamatan Pasien Menjadi Issu Terkini Terkait Keselamatan Pasien*. 2006. <http://dx.doi.org/10.31219/osf.io/cmdtb>

- Tahoun, A., Safan, S, A. . (2021). Nurses' Application of International Patient Safety Goals at Accredited and Non-accredited Hospitals Amir. *Journal of Nursing Science - Benha University*, 2(2), 129–142. <https://doi.org/10.4234/jjoffamilysociology.28.250>
- Tampubolon, K. N. (2020). *Elemen Pengambilan Keputusan Keperawatan yang Tepat Sebagai Salah Satu Tolak Ukur Asuhan Keperawatan*. 1–9.
- Tiranda, Yulius. (2023). *Metodologi Penelitian : Langkah Praktis (Pemula) Merancang Penelitian Kuantitatif*. Jakarta: Media Info Trans.
- Valentina, T. (2019). Faktor – faktor yang mempengaruhi penerapan keselamatan pasien dirumah sakit. *Jurnal Ilmu Kesehatan*, 1–8.
- Widodo, S., Ladyani, F., Asrianto, L. O., Rusdi, Khairunnisa, Lestari, S. M. P., Wijayanti, D. R., Devriany, A., Hidayat, A., Dalfian, Nurcahyati, S., Sjahriani, T., Armi, Widya, N., & Rogayah. (2023). *Metodologi Penelitian*.
- Wright, D., & Wilkins, K. (2021). "Clinical Competency Testing in Nursing Education: A Review of Methods." *Nursing Education Perspectives*, 42(5), 305-312.
- Yustriani, S. K. M. (2022). Hubungan Kompetensi Perawat IGD Terhadap Tingkat Kepuasan Pasien di Ruang IGD RSUD Abdul Wahab Sjahranie Samarinda. *JHeS, Vol 3, No(2)*, 1–10.
- Zarui. (2021). Hubungan Kompetensi Perawat Dengan Upaya Penerapan Patient. *Window of Public Health Journal*, 2(4), 1348–1356.