

The Role of Clinical Supervision in Patient Safety Incident Reporting Among Nurses: A Moderated Model

Erna Puspita Sari^{1,*}, Kuswantoro Rusca Putra¹, Yati Sri Hayati¹, Mochamad Ali Sodikin²

¹Departement of Nursing, Faculty of Health Science, Universitas Brawijaya, Malang, East Java, Indonesia

²Dr. Radjiman Wediodiningrat Hospital, Lawang, East Java, Indonesia

*corresponding author: puspita.erna@gmail.com

Received November 26, 2025

Revised May 14, 2026

Accepted August 04, 2026

Available online August 17, 2026

Abstract

Aims: Underreporting remains a major challenge in patient safety programs, influenced by both individual and organizational factors. This study aimed to examine the effects of the nursing work environment, patient safety competence, and clinical supervision on patient safety incident reporting.

Methods: A cross-sectional quantitative correlational study was conducted among nurses from three type B hospitals in Malang. A total of 224 eligible nurses completed the questionnaire. Data were collected using four validated and reliable Indonesian-translated instruments: PES-5, H-PEPSS, MCSS-26, and ROCAES. SmartPLS 4 was used to analyze the data and test the moderating role of clinical supervision.

Results: The nursing work environment showed a positive but insignificant effect on patient safety incident reporting ($\beta=0.130$, $p=0.106$), whereas patient safety competence ($\beta=0.109$, $p=0.048$) and clinical supervision ($\beta=0.373$, $p<0.001$) had significant positive effects. Clinical supervision did not moderate the relationship between the nursing work environment and incident reporting ($\beta=-0.007$, $p=0.929$), but significantly strengthened the effect of patient safety competence on incident reporting ($\beta=0.276$, $p<0.001$).

Conclusion: Clinical supervision serves not only as a direct determinant of patient safety incident reporting but also as a mechanism that strengthens the influence of nurses' patient safety competence on reporting behavior. These findings highlight the importance of integrating structured clinical supervision with competency development initiatives to foster a stronger patient safety reporting culture.

Keywords: clinical supervision, incident reporting, patient safety, work environment

Introduction

Patient safety incidents have significant consequences for patients, nurses, healthcare organizations, and society, including prolonged hospitalization, disability, psychological distress, loss of trust, and considerable economic burdens (Gens-Barberà et al., 2021; Pyo et al., 2020; WHO, 2021). Globally, guidelines for incident reporting and learning systems have been introduced in approximately 70% of countries; however, their effectiveness remains limited. Approximately 32% of countries report substantial engagement, with more than 60% of healthcare facilities participating in patient safety incident reporting and learning systems (WHO, 2024). Despite these initiatives, under-reporting persists as a global challenge, with low participation in reporting systems in many regions (Kurihara et al., 2022; WHO, 2024).

Underreporting is influenced by multiple organizational and individual factors, including safety culture, staff competence, managerial support, work environment, and clinical supervision. Weak leadership, blame culture, inadequate training, limited feedback, and occupational stressors may further hinder nurses' willingness and ability to report patient safety incidents (Fekadu, Muir et al., 2025; Fekadu, Tobiano et al., 2025; WHO, 2024). Positive clinical environments characterized by effective communication, collaboration, adequate staffing, recognition, and supportive leadership encourage consistent reporting behavior (Arsani et al., 2023; Kiviliene et al., 2024). Competent nurses are also better able to identify risks, prevent errors, communicate effectively, and utilize reporting systems appropriately, thereby improving patient outcomes and overall safety (Fekadu et al., 2025; Hafezi et al., 2022; Kakemam et al., 2024). Accordingly, determinants of patient safety incident reporting can be broadly classified into organizational factors, particularly the nursing work environment, and individual factors, particularly patient safety competence. These two domains represent key antecedents of reporting behavior and provide the conceptual basis for examining how organizational support mechanisms, such as clinical supervision, may further influence these relationships.

Although the competence of nurses is vital for effective incident reporting, organizational mechanisms, such as clinical supervision, may further influence reporting behavior. Clinical supervision has shown mixed effects. Supportive and constructive supervision enhances reporting and reduces adverse events, whereas abusive or punitive supervision inhibits it (Adriansyah et al., 2022; Li et al., 2024). However, although previous studies have examined individual determinants of incident reporting, limited research has explored the moderating role of clinical supervision in strengthening or weakening the relationships between nursing work environment, patient safety competence, and patient safety incident reporting, particularly in hospital-based clinical settings. Clinical supervision may not directly create a supportive work environment or improve competence; however, it may determine whether these existing organizational and individual resources are translated into actual reporting behavior. Through reflective guidance, formative feedback, and restorative support, clinical supervision can strengthen nurses' confidence and willingness to report patient safety incidents. Therefore, clinical supervision is theoretically expected to function as a moderator rather than merely as an independent predictor.

The nursing work environment represents organizational conditions that facilitate or hinder professional nursing practice. According to Ray's Bureaucratic Caring Theory, bureaucratic structures including leadership, staffing adequacy, organizational policies,

and professional relationships shape nurses' professional behaviors related to patient safety and clinical decision making. A supportive work environment is therefore expected to encourage open communication and incident reporting (Lusiyana et al., 2019; Ray, 2021). Therefore, the following hypothesis was proposed: H1 Nursing work environment positively influences patient safety incident reporting.

Benner's Novice-to-Expert Model explains that competence develops progressively through education, clinical experience, and reflective practice. Nurses with higher competence are more capable of recognizing patient safety risks, communicating adverse events, and utilizing reporting systems appropriately (Zaitoun et al., 2023). Based on this theoretical perspective, higher patient safety competence is expected to promote more active patient safety incident reporting. Therefore, the following hypothesis was proposed: H2 Patient safety competence positively influences patient safety incident reporting.

Clinical supervision provides formative, normative, and restorative support that helps nurses apply their knowledge and skills in daily practice. From the perspective of Ray's Bureaucratic Caring Theory, clinical supervision represents an organizational mechanism that reinforces professional behavior through guidance, reflective learning, and supportive leadership within healthcare systems. By fostering a supportive and non-punitive environment, clinical supervision is expected to encourage nurses to report patient safety incidents more consistently. Therefore, the following hypothesis was proposed: H3 Clinical supervision positively influences patient safety incident reporting.

Although supportive work environments and competent nurses contribute to safer practice, their effects on reporting behavior may vary depending on the quality of clinical supervision. Effective supervision facilitates reflective practice, reduces fear of blame, reinforces professional accountability, and encourages nurses to translate competence and organizational support into actual reporting behavior. Consequently, clinical supervision is expected to strengthen the effects of both nursing work environment and patient safety competence on patient safety incident reporting. Based on this theoretical rationale, the following hypotheses were proposed: H4 Clinical supervision moderates the relationship between nursing work environment and patient safety incident reporting. H5 Clinical supervision moderates the relationship between patient safety competence and patient safety incident reporting.

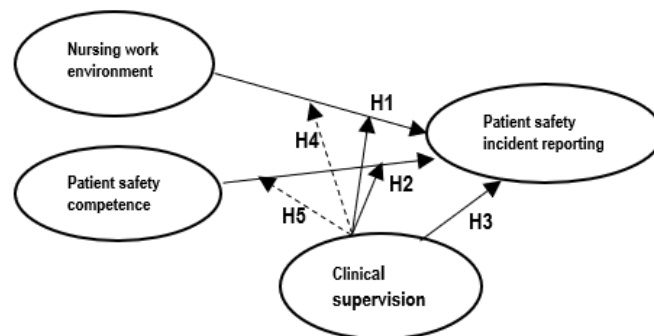


Figure 1. Conceptual Framework of the Hypothesized Relationships among Nursing Work Environment, Patient Safety Competence, Clinical Supervision, and Patient Safety Incident Reporting (H1-H5)

Methods

This study employed a cross-sectional quantitative correlational design. The study population consisted of 370 nurses from inpatient units of three Type B hospitals in Malang. The minimum sample size was determined using the Gamma Exponential Method for Partial Least Squares Structural Equation Modeling (PLS-SEM), which is recommended for estimating the required sample size in structural models involving latent constructs (Cheah et al., 2020). Based on the proposed structural model, the minimum required sample size was 190 participants. A total of 224 nurses were ultimately recruited and included in the analysis, exceeding the recommended minimum sample size and indicating adequate statistical power to estimate the hypothesized direct and moderating effects. Participants were recruited using proportional quota sampling. Proportional quota sampling was selected to ensure adequate representation of nurses from the three hospitals and different inpatient units while accommodating the practical limitations of clinical schedules and participant availability. The inclusion criteria were nurses who had ≥ 1 year of work experience, provided direct patient care, were in good physical and mental health, and were willing to participate.

Data were collected using four standardized instruments translated and culturally adapted into Indonesian: PES-5 (work environment), modified H-PEPSS (patient safety competence), MCSS-26 (clinical supervision), and ROCAES (incident reporting). The adaptation process included forward translation, expert review, and pilot testing to ensure linguistic clarity, cultural relevance, and content appropriateness. All instruments were tested using Pearson's correlation and Cronbach's alpha, demonstrating acceptable validity and reliability.

Common method bias was assessed using Harman's single-factor test, which is commonly used in survey-based studies and PLS-SEM research (Kock et al., 2021). The first factor accounted for 27.299% of the total variance, which was below the recommended threshold of 50%, indicating that common method bias was unlikely to substantially affect the study findings.

Data analysis included univariate analysis to describe respondent characteristics and study variables using median and interquartile range, followed by multivariate analysis using partial least squares structural equation modeling (PLS-SEM) with SmartPLS 4. PLS-SEM was selected because the study aimed to examine predictive relationships among multiple latent constructs and simultaneously assess direct and moderating effects within a single structural model. In addition, PLS-SEM is appropriate for exploratory prediction-oriented research involving complex models with latent variables and interaction terms (Hair, 2021).

The measurement model was evaluated by examining indicator reliability (outer loadings), internal consistency reliability (Cronbach's alpha and composite reliability), convergent validity (average variance extracted [AVE]), and discriminant validity using the heterotrait-monotrait ratio (HTMT). The structural model was subsequently evaluated using path coefficients (β), coefficients of determination (R^2), predictive relevance (Q^2), and bootstrapping procedures.

Because hypotheses H1-H3 proposed directional positive relationships based on established theoretical and empirical evidence, statistical significance for these direct effects was evaluated using one-tailed tests. In contrast, the moderating hypotheses

(H4–H5) were assessed using two-tailed tests because interaction effects may strengthen, weaken, or show no effect on the relationships between constructs. Statistical significance was determined at $p < 0.05$.

Results

Table 1 presents the participants' demographic characteristics. Most respondents were female, aged 25–30 years, held a nursing diploma, had more than 15 years of work experience), were classified as competent clinical nurses, and had attended patient safety training

Table 1. Respondent Characteristics

Respondent Characteristics	Categories	n	%
Gender	Male	43	19.2
	Female	181	80.8
Age	< 25 years	2	0.9
	25–30 years	63	28.1
	31–35 years	54	24.1
	36–40 years	29	12.9
	41–45 years	46	20.5
	> 46 years	30	13.4
Last education	Diploma	129	57.6
	Bachelor of Nursing	2	0.9
	Registered Nurse	93	41.5
Work experience	1–5 years	58	25.9
	5–10 years	58	25.9
	10–15 years	34	15.2
	> 15 years	74	33.0
Clinical nurse level	Novice	59	26.3
	Advanced beginner	73	32.6
	Competent	81	36.2
	Proficient	11	4.9
Patient Safety Training Experience	Never	73	32.6
	Yes	151	67.4

Table 2 summarizes the distribution of the study constructs. Overall, respondents reported positive perceptions of the nursing work environment, patient safety competence, clinical supervision, and patient safety incident reporting.

Table 2. Statistical Distribution of the Constructs

Constructs and Dimensions	Median (IQR)
Nursing work environment	84 (82–88)
Patient safety competence	81 (80–94)
Clinical supervision	94 (87–100.75)
Patient safety incident reporting	71 (67–73)

Figure 2 presents the structural relationships, illustrating the moderating role of clinical supervision on the effects of the nursing work environment and patient safety

competence on incident reporting. Table 3 summarizes the assessment of the outer model, including indicator validity and reliability.

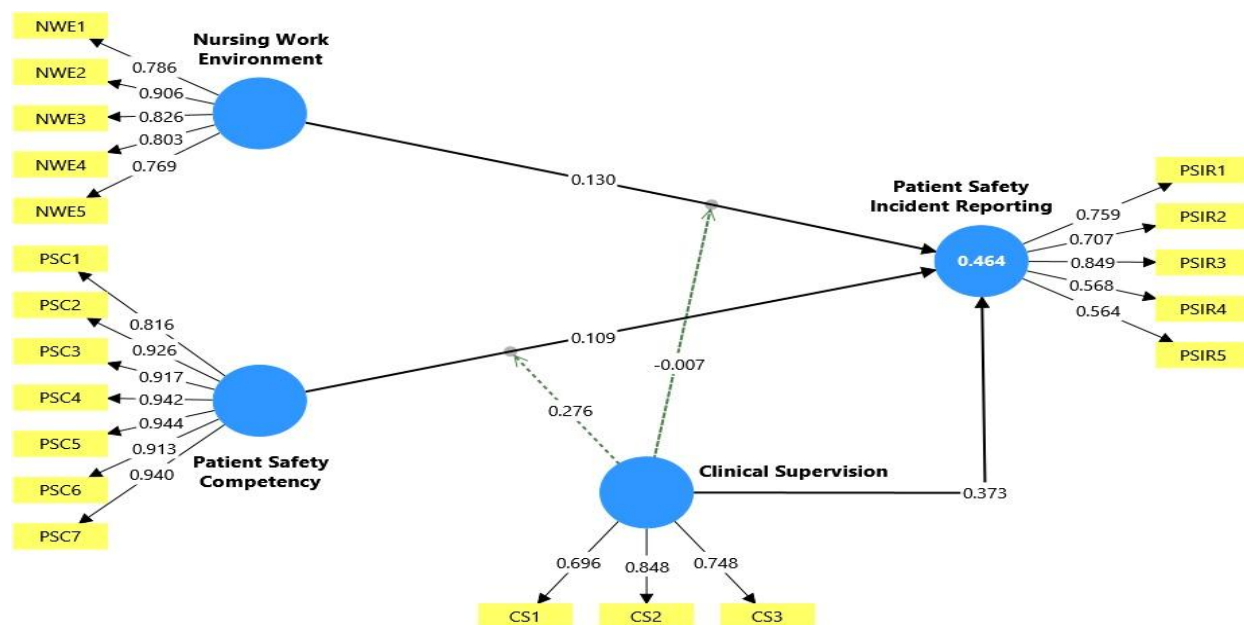


Figure 2. Structural Path Diagram of the Relationships among Nursing Work Environment, Patient Safety Competence, Clinical Supervision, and Patient Safety Incident Reporting

Table 3. Outer Model

Construct	Indicators	Loading Factor	Cronbach's Alpha	Composite Reliability	AVE	Valid and Reliable
Nursing work environment (NWE)	NWE 1	0.786	0.877	0.911	0.819	✓
	NWE 2	0.906				
	NWE 3	0.826				
	NWE 4	0.803				
	NWE 5	0.769				
Patient safety competence (PSC)	PSC 1	0.816	0.967	0.973	0.915	✓
	PSC 2	0.926				
	PSC 3	0.917				
	PSC 4	0.942				
	PSC 5	0.944				
	PSC 6	0.913				
	PSC 7	0.940				
Clinical supervision (CS)	CS 1	0.696	0.655	0.809	0.767	✓
	CS 2	0.848				
	CS 3	0.748				
Patient safety incident reporting (PSIR)	PSIR 1	0.759	0.727	0.823	0.698	✓
	PSIR 2	0.707				
	PSIR 3	0.849				
	PSIR 4	0.568				
	PSIR 5	0.564				

Table 3 summarizes the assessment of the outer model, including indicator validity and reliability. All indicators for nursing work environment, patient safety competence, clinical supervision, and incident reporting showed factor loadings ranged from 0.564 to 0.944 and AVE >0.5, confirming validity, while composite reliability >0.7 and Cronbach's alpha >0.6 confirmed reliability (Hair, 2021). With the outer model validated, the analysis proceeded to the inner model to assess the significance and strength of relationships between constructs (Table 4).

Table 4. Inner Model

Construct	AVE	R ²	Q ²	GOF
PSIR	0.671	0.464	0.464	0.547

Overall, the model explained 46.4% of the variance in patient safety incident reporting, while the remaining variance was influenced by other factors. The GOF value, indicated a good fit between empirical data and the theoretical framework (Hair, 2021). The direct effects were then examined to test the hypothesized relationships (Table 5).

Table 5. Direct Effect

Hypothesis	Exogen	Endogen	β	T	p Value	Decision
H1	NWE	PSIR	0.130	1.248	0.106	Not Supported
H2	PSC	PSIR	0.109	1.664	0.048	Supported
H3	CS	PSIR	0.373	5.181	<0.001	Supported

Direct effect analysis indicated that the nursing work environment did not significantly influence patient safety incident reporting. In contrast, patient safety competence and clinical supervision showed significant positive effects, with clinical supervision demonstrating the strongest influence on reporting behavior (Table 5). The moderating effects were subsequently examined to assess the role of clinical supervision in these relationships.

Table 6. Moderating Effect

Hypothesis	Exogen	Endogen	β	SE	T	p Value	Decision
H4	CS X NWE	PSIR	-0.007	0.082	0.090	0.929	Not Supported
H5	CS X PSC	PSIR	0.276	0.065	4.275	<0.001	Supported

Moderating effect analysis showed that clinical supervision did not moderate the relationship between the nursing work environment and patient safety incident reporting. However, clinical supervision significantly strengthened the effect of patient safety competence on incident reporting (Table 6).

Discussion

The results showed that the nursing work environment did not have a significant direct effect on patient safety incident reporting, leading to the rejection of hypothesis H1. Although nurses who perceived their environment as supportive were more inclined to report incidents, the effect was modest and did not reach statistical significance. This suggests that factors beyond the structural work environment may play a more dominant role in shaping reporting behavior.

These findings are partially consistent with previous studies showing that aspects of the nursing work environment contribute to reporting behavior (Arsani et al., 2023),

particularly managerial support, adequate staffing, and nurse–physician collaboration (Koskiniemi et al., 2025; Wei et al., 2024; Tlhako et al., 2025). However, evidence also shows that a supportive environment alone is insufficient when structural, cultural, or procedural barriers persist (Al Sabei et al., 2021; Kiviliene et al., 2024). This interpretation aligns with Ray’s Bureaucratic Caring Theory, which posits that nurse behavior is shaped not only by structural systems but also by organizational, cultural, and ethical values embedded within the workplace (Ray, 2021).

In contrast, patient safety competence demonstrated a positive and significant effect on patient safety incident reporting, supporting hypothesis H2. Nurses with higher levels of competence were more likely to actively report patient safety incidents. These findings are consistent with previous studies showing that higher competence is associated with fewer adverse events and increased reporting behavior (Hafezi et al., 2022; Kakemam et al., 2024; Zaitoun et al., 2023). This finding is also supported by Benner’s From Novice to Expert model, which explains that competence develops progressively through experience and reflective practice, enabling nurses to better recognize risks and engage more effectively in incident reporting.

The findings also showed that clinical supervision had a positive and significant direct effect on patient safety incident reporting, supporting hypothesis H3. Stronger supervision perceptions are associated with higher reporting behavior, highlighting its essential role in strengthening safety culture. These results are consistent with previous evidence indicating that structured supervision supports professional growth and safety-oriented behaviors (Adriansyah et al., 2022; Disik et al., 2025). Clinical supervision has also been shown to foster reflective support, improve communication, and reinforce adherence to patient safety goals (Styles et al., 2023; Hamilton et al., 2024). Collectively, these findings emphasize the importance of effective, restorative, and non-punitive supervision in promoting transparent incident reporting.

The results further demonstrate that clinical supervision does not moderate the relationship between the nursing work environment and patient safety incident reporting, indicating that hypothesis H4 is rejected. Clinical supervision neither strengthens nor weakens the work environment effect on reporting behavior, but rather functions as an independent variable with a direct influence. This finding may be explained by the fact that the nursing work environment is largely shaped by broader organizational conditions, such as staffing adequacy, institutional policies, leadership systems, workload distribution, and organizational culture, which are not easily modified through supervisory interactions alone. Although clinical supervision may provide emotional support, professional coaching, and competence development, it may not be sufficient to compensate for structural or systemic workplace limitations affecting reporting behavior (Martin et al., 2021). Clinical supervision primarily enhances nurses’ confidence, reflective practice, and professional support without necessarily strengthening the influence of organizational work environment factors on reporting behavior (Disik et al., 2025; Shongwe et al., 2024). These findings are consistent with evidence that organizational policies, safety culture, and managerial support play stronger roles in shaping reporting behavior than individual coaching (Oweidat et al., 2023; Atwal et al., 2020).

The analysis also shows that clinical supervision moderates the effect of patient safety competence on patient safety incident reporting, supporting hypothesis H5. Supervision acts as a quasi-moderator, interacting with competence while maintaining a direct effect on reporting. Effective supervision amplifies the impact of nurses' competence on reporting behavior. Effective supervision may help nurses translate their competence into actual reporting practices by increasing confidence, reducing fear of blame, encouraging reflective practice, and providing constructive feedback regarding patient safety procedures. These results align with prior studies confirming that supervision enhances competence, strengthens safety culture, and increases nurses' willingness to report (Disik et al., 2025; El-Sayed et al., 2025; Shahzeydi et al., 2023). Consistent, structured supervision supports safe learning experiences, professional values, and clinical skills (Javornická et al., 2024). Ineffective supervision, in contrast, may limit the translation of competence into reporting behavior. Supervisors should provide guidance, emotional support, and constructive feedback within a balanced formative, normative, and restorative framework to optimize reporting outcomes.

These findings have important implications for research and practice. Theoretically, the results support and extend Bureaucratic Caring Theory and Benner's framework by demonstrating how structural, cultural, and competency-related factors interact to influence reporting behavior. Practically, healthcare organizations should focus on strengthening patient safety competence through continuous training, structured feedback, and supportive supervision. Clinical supervision should be implemented not only as a direct intervention but also as a mechanism to reinforce the influence of competence on reporting behavior. Future research could adopt longitudinal designs, include more diverse healthcare settings, and investigate additional organizational or individual factors that may facilitate or hinder patient safety incident reporting.

Limitations

This study is limited by its exclusive focus on individual perceptions, without considering organizational factors such as safety culture, reporting policies, or reward and punishment systems. Additionally, the sample consisted solely of inpatient nurses, so the nurse's experiences, workloads, and environmental characteristics from other units were not represented.

Contribution to global nursing practice

The finding of this study can guide nursing managers and policymakers in fostering supportive work environments, implementing effective supervision strategies, and developing systematic competency-building programs. Strengthening nurses' knowledge, skills, and attitudes related to patient safety is expected to reduce adverse events, improve reporting accuracy, enhance team collaboration, and support the development of evidence-based policies. Collectively, these improvements contribute to better patient care quality, increased safety, and greater organizational efficiency in healthcare settings.

Conclusion

This study demonstrates that patient safety competence and clinical supervision are key determinants of patient safety incident reporting among nurses, whereas the nursing work environment alone does not significantly influence reporting behavior. Clinical supervision exerts both a direct and a moderating effect on the relationship between competence and reporting, highlighting its role in enhancing nurses'

confidence, professional development, and adherence to safety practices. These findings underscore the importance of structured training, supportive supervision, and a nonpunitive organizational culture to strengthen reporting behavior and promote a robust patient safety culture in healthcare settings. These findings also highlight the need for hospital management and policymakers to integrate supportive clinical supervision and patient safety competency development into institutional patient safety governance and quality improvement strategies.

Author Contribution

All authors have accepted responsibility for the entire content of this manuscript and have approved its submission.

Conflict of interest

The authors declare no conflict of interest.

Acknowledgment

The author gratefully acknowledges the guidance and support provided by the supervisors and hospital staff throughout this study.

Reference

- Adriansyah, A. A., Setianto, B., Lestari, I., Arindis, P. A. M., Kurniawana, W. E., & Sa'adah, N. (2022). Incident analysis of patient safety in hospital: Based on feedback and supervision concept. *Bali Medical Journal*, 11(2), 665–670. <https://doi.org/10.15562/bmj.v11i2.3137>
- Al Sabei, S. D., AbuAlRub, R., Labrague, L. J., Ali Burney, I., & Al-Rawajfah, O. (2021). The impact of perceived nurses' work environment, teamness, and staffing levels on nurse-reported adverse patient events in Oman. *Nursing Forum*, 56(4), 897–904. <https://doi.org/10.1111/nuf.12639>
- Arsani, S. H., Ahsan, & Fevriasanty, F. I. (2023). Analysis of the Dimensions of a Healthy Work Environment for Successful Patient Safety Incident Reporting: A Cross-Sectional GStudy. *JMMR (Journal of Medical-Ethical-Legal and Hospital Management)*, 12(1). <https://doi.org/10.18196/jmmr.v12i1.29>
- Atwal, A., Phillip, M., & Moorley, C. (2020). Senior nurses' perceptions of junior nurses' incident reporting: A qualitative study. *Journal of Nursing Management*, 28(6), 1215–1222. <https://doi.org/10.1111/jonm.13063>
- Cheah, J. H., Amaro, S., & Roldán, J. L. (2023). Multigroup analysis of more than two groups in PLS-SEM: A review, illustration, and recommendations. *Journal of Business Research*, 156. <https://doi.org/10.1016/j.jbusres.2022.113539>
- Disik, B., Leo Bunga, A., & Kusumaningsih, I. (2025). Clinical supervision on patient safety: A systematic literature review. *Science Midwifery*, 13(1), 280–285. <https://doi.org/10.35335/midwifery.v13i1.1903>
- El-Sayed, B. K. M., Mohmed, E. A. T., Baddar, F. M., & Khattab, S. M. K. (2025). Insights from critical care nurses: role of leadership coaching in enhancing incident reporting culture: a cross-sectional study. *BMC Nursing*, 24(1). <https://doi.org/10.1186/s12912-025-03791-6>

- Fekadu, G., Muir, R., Tobiano, G., Ireland, M. J., Engidaw, M. T., & Marshall, A. P. (2025). Patient safety incident reporting systems and reporting practices in African healthcare organizations: a systematic review and meta-analysis. *BMJ Open Quality*, 14(1). <https://doi.org/10.1136/bmj-oq-2024-003202>
- Fekadu, G., Tobiano, G., Muir, R., Engidaw, M. T., & Marshall, A. P. (2025). Factors influencing patient safety incident reporting in African healthcare organizations: a systematic integrative review. *BMC Health Services Research*, 25(1), 619. <https://doi.org/10.1186/s12913-025-12762-1>
- Gens-Barberà, M., Hernández-Vidal, N., Vidal-Esteve, E., Mengibar-García, Y., Hospital-Guardiola, I., Oya-Girona, E. M., Bejarano-Romero, F., Castro-Muniain, C., Satué-Gracia, E. M., Rey-Reñones, C., & Martín-Luján, F. M. (2021). Analysis of patient safety incidents in primary care reported in an electronic registry application. *International Journal of Environmental Research and Public Health*, 18(17). <https://doi.org/10.3390/ijerph18178941>
- Hafezi, A., Babaii, A., Aghaie, B., & Abbasinia, M. (2022). The relationship between patient safety culture and patient safety competency with adverse events: a multicenter cross-sectional study. *BMC Nursing*, 21(1). <https://doi.org/10.1186/s12912-022-01076-w>
- Hair, J. F., Jr., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer. <https://doi.org/10.1007/978-3-030-80519-7>
- Hamilton, J., Cole, A., Bostwick, R., & Ngune, I. (2024). Staff Perceptions on the Effectiveness of GRiP-S, a New Approach to Clinical Supervision Incorporating Safewards: An Interpretive Phenomenological Analysis. *Issues in Mental Health Nursing*, 45(1), 85–95. <https://doi.org/10.1080/01612840.2023.2280198>
- Javornická, D., Kisvetrová, H., Prušová, E., Váverková, R., J Greaves, P., & Steven, A. (2024). The influence of supervisory support on clinical learning as experienced by Czech Nursing and health professional students in the context of patient safety events: A qualitative study. *Nurse Education in Practice*, 79. <https://doi.org/10.1016/j.nepr.2024.104041>
- Kakemam, E., Albelbeisi, A. H., Rouzbahani, M., Gharakhani, M., Zahedi, H., & Taheri, R. (2024). Nurses' perceptions of patient safety competency: A cross-sectional study of relationships with occurrence and reporting of adverse events. *PLoS ONE*, 19(1 January). <https://doi.org/10.1371/journal.pone.0297185>
- Kiviliene, J., Paukstaitiene, R., Stievano, A., & Blazeviciene, A. (2024). The Relationship between Clinical Environment and Adverse Events Reporting: Evidence from Lithuania. *Healthcare (Switzerland)*, 12(2). <https://doi.org/10.3390/healthcare12020252>
- Kock, F., Berbekova, A., & Assaf, A. G. (2021). Understanding and managing the threat of common method bias: Detection, prevention and control. *Tourism Management*, 86. <https://doi.org/10.1016/j.tourman.2021.104330>
- Koskineniemi, S., Jukarainen, L., Syyrilä, T., Manias, E., Hämeen-Anttila, K., & Härkänen, M. (2025). Nurse and Other Healthcare Managers' Experiences and Recommendations for Patient Incident Reporting Processes and Real-Time Software Development: A Qualitative Study. *Journal of Advanced Nursing*. <https://doi.org/10.1111/jan.70220>

- Kurihara, M., Watari, T., Rohde, J. M., Gupta, A., Tokuda, Y., & Nagao, Y. (2022). Nationwide survey on Japanese residents' experience with and barriers to incident reporting. *PLoS ONE*, 17(12), December). <https://doi.org/10.1371/journal.pone.0278615>
- Li, Z. Y., Yang, Y. P., Wang, Q., Zhang, M. X., Luo, C. W., Zhu, L. F., Tung, T. H., & Chen, H. X. (2024). Association between abusive supervision and nurses' withholding voice about patient safety: the roles of impression management motivation and speak up-related climate. *BMC Nursing*, 23(1). <https://doi.org/10.1186/s12912-024-01921-0>
- Lusiyana, A., Yetti, K., & Kuntarti, K. (2019). The strategies of bureaucratic caring implementation by nurse manager: A systematic review. *Enfermeria Clinica*, 29, 41–46. <https://doi.org/10.1016/j.enfcli.2019.05.003>
- Martin, P., Lizarondo, L., Kumar, S., & Snowden, D. (2021). Impact of clinical supervision on healthcare organizational outcomes: A mixed methods systematic review. In *PLoS ONE* (Vol. 16, Issue 11 November). Public Library of Science. <https://doi.org/10.1371/journal.pone.0260156>
- Oweidat, I., Al-Mugheed, K., Alsenany, S. A., Abdelaliem, S. M. F., & Alzoubi, M. M. (2023). Awareness of reporting practices and barriers to incident reporting among nurses. *BMC Nursing*, 22(1). <https://doi.org/10.1186/s12912-023-01376-9>
- Payangga, A. D. (2020). Nursing Competency on Safety Practices and Quality Care. *Asian Journal of Health*, 9(1). <https://doi.org/10.7828/ajoh.v9i1.1307>
- Pramesona, B. A., Sukohar, A., Taneepanichskul, S., & Rasyid, M. F. A. (2023). A qualitative study of the reasons for low patient safety incident reporting among Indonesian nurses. *Brazilian Journal of Nursing*, 76(4). <https://doi.org/10.1590/0034-7167-2022-0583>
- Pyo, J., Lee, W., Jang, S. G., Choi, E. Y., Ock, M., & Lee, S.-I. (2020). *Impact of Patient Safety Incidents Reported by the General Public in Korea*. www.journalpatientsafety.com
- Ray, M. A. (2021). Evolution of Ray's Theory of Bureaucratic Caring. *International Journal for Human Caring*, 25(3), 159–175. <https://doi.org/10.20467/HumanCaring-D-20-00043>
- Salem, A. (2024). Incident Reporting Culture in the Critical Care Units: Barriers, and Suggestions for Improvement from Nurses' Perspectives. *Assiut Scientific Nursing Journal*, 0(0), 0–0. <https://doi.org/10.21608/asnj.2024.293137.1826>
- Shahzeydi, A., Farzi, S., Tarrahi, M. J., & Babaei, S. (2023). The effect of clinical supervision model on nursinginterns medication safety competence and knowledge: A clinical trial. *Nursing and Midwifery Studies*, 12(4), 190–196. <https://doi.org/10.48307/nms.2023.412822.1251>
- Shongwe, B. I., Downing, C., & Nene, S. (2024). Operational nursing managers' experiences of clinical supervision at a Johannesburg Hospital. *Curationis*, 47(1). <https://doi.org/10.4102/curationis.v47i1.2521>
- Styles, M., Schafheutle, E., Willis, S., & Shaw, M. (2023). Pharmacy professionals' perceptions of educational supervision in primary care through the lens of Proctor's model. *BMC Medical Education*, 23(1). <https://doi.org/10.1186/s12909-023-04398-8>

- Tlhako, N., Coetzee, S. K., Ajanaku, O. J., & Fourie, E. (2025). The impact of workplace relationships on nurse-reported quality of care and patient safety in the North West Province. *PLOS ONE*, 20(5 May). <https://doi.org/10.1371/journal.pone.0323620>
- Wei, N., Wang, Z., Li, X., Zhang, Y., Zhang, J., Huang, Z., & Wang, X. (2024). Improved staffing policies and practices in healthcare based on a conceptual model. *Frontiers in Public Health*, 12. <https://doi.org/10.3389/fpubh.2024.1431017>
- World Health Organization (WHO). (2024). *Global patient safety report 2024*. Retrieved from <https://www.who.int/publications/i/item/9789240095458>
- Zaitoun, R. A., Said, N. B., & de Tantillo, L. (2023). Clinical nurse competence and its effect on patient safety culture: a systematic review. *BMC Nursing*, 22(1). <https://doi.org/10.1186/s12912-023-01305-w>
- Zhang, C., Yang, Z., Liang, Y., Feng, Y., & Zhang, X. (2024). A qualitative study of head nurses' experience in China: forced growth during patient safety incidents. *BMC Nursing*, 23(1). <https://doi.org/10.1186/s12912-024-02255-7>