JURNAL PENDIDIKAN KEPERAWATAN INDONESIA
Journal Homepage: http://ejournal.upi.edu/index.php/JPKI

Patient Safety Culture in Pre-Post Partum and Perinatology Units

Wice Purwani Suci[1*], Erika[1], Widia Lestari[1], Nurhannifah Rizky Tampubolon[1], Riamin Maria[2], Usa Sunairattanaporn[3]

[1]Faculty of Nursing, University of Riau, Indonesia
[2]Arifin Achmad Regional General Hospital, Pekanbaru, Indonesia
[3]Chollada Hospital, Nonthaburi, Thailand

***Corresponding email:** wice.purwani@lecturer.unri.ac.id

A B S T R A C T

Introduction: Effective patient safety practices in pre-post partum and perinatology units are crucial for ensuring high-quality care for mothers and children. These practices are expected to reduce maternal and child mortality rates, which remain significant. Patient safety implementation in hospitals depends largely on the patient safety culture within each institution. **Objective:** This study aimed to assess the application of patient safety culture in pre-post partum and perinatology wards. **Methods:** The research employed a mixed-methods approach with a sequential explanatory design. Quantitative data were gathered using the AHRQ (Agency for Health Research and Quality) questionnaire. Meanwhile, the qualitative research used an instrumental case study approach insights were derived from in-depth interviews with 52 nurses working in these units. **Results:** Results show an overall positive response rate of 67.8% across the 12 dimensions of patient safety culture, indicating satisfactory levels. The dimension with the highest positive response rate is teamwork at 38%, while openness had the lowest at 6%. Challenges in patient safety program implementation include lack of safety culture surveys, inadequate incident reporting systems, high blaming culture, lack of support, delayed case reporting, and financial constraints. Reporting, analysis, and evaluation are predominantly limited to internal hospital processes. **Conclusion:** The obstacles encountered in implementing a patient safety culture are the behavior of healthcare workers and the lack of optimal support from management. The recommendations given are the formation of a Patient Safety Committee, education about safety culture for healthcare workers, Monitoring and evaluation of the patient safety program that has been implemented.

ARTICLE INFO

Article History:

***Received**: May 15th, 2024*
***Revised:** June 16th, 2024*
***Accepted:** June 21th, 2024*
***First Available Online:** June 22th, 2024*
***Published:** June 30th, 2024*

Keywords:
Patient safety culture, Pre-post partum ward, Nurse, Perinatology

1. INTRODUCTION

Reducing maternal and infant mortality rates is a key goal of the Sustainable Development Goals (SDGs). Maternal Mortality Rate (MMR) in Indonesia remains high at 305 per 100,000 live births, whereas Infant Mortality Rate (IMR) is approximately 24 per 1,000 live births (Kemenkes, 2023). Despite increased maternal and child health care facilities, there is a lack of focus on quality care, particularly in patient safety practices within pre-post partum and perinatology units (Rahmawati, N., Pramesty, M. H. E., Karno, F., Aprilia, 2023).

Evaluation of patient safety culture in hospitals is crucial, especially in maternal and child health areas. Such evaluations can identify areas needing improvement, detect patterns over time, and ensure appropriate care that affects patient safety. The Joint Commission's review of maternal deaths and birth accidents highlights safety issues. Factors contributing to infant deaths are identified and categorized. Among 47 reviewed cases, 72% were related to communication issues, 55% to organizational culture, and 47% to team capabilities (Do Carmo et al., 2020).

Safety has become a global concern. Several developed countries have shifted from a quality to a quality-safety perspective, aiming not only to enhance service quality but also to consistently and continuously ensure patient safety (Franklin et al., 2020). Patient safety systems aim to provide safer patient care by including risk assessment, identification and management of patient risks, incident reporting and analysis, learning from incidents and follow-ups, and implementing solutions to reduce risks and prevent harm from errors in action or inaction (Kemenkes RI, 2017). Patient safety aims to minimize errors and prevent patient falls by enhancing nurses' understanding of error prevention and reducing adverse effects (Berry et al., 2020).

Nurses play a crucial role in healthcare by promoting patient safety through nursing error prevention. It has been found that 7.5% of patients receiving care in acute healthcare facilities experience at least one patient safety incident, with between 9,250 and 23,750 potentially preventable deaths (Kalabharathi & N, 2021). Hospital management must create a patient safety culture throughout the hospital to reduce patient safety-related deaths. According to the Agency for Health Research and Quality (AHRQ), there are twelve dimensions that shape patient safety culture. This study aimed to assess the application of patient safety culture in pre-post partum and perinatology wards

2. METHODS

Research Design

This study used a mixed-methods approach or sequential explanatory design, combining quantitative and qualitative methods sequentially. The first stage used a quantitative approach with the AHRQ Hospital Survey on Patient Safety Culture to describe patient safety culture in pre-post partum and perinatology wards in the research hospital (Sorra et al., 2018). This was followed by data collection and analysis through in-depth interviews. This method uses quantitative methods in the first stage and qualitative methods in the second stage to collect and analyze data, in order to strengthen the results of the quantitative research conducted in the first stage.

DOI: https://doi.org/10.17509/jpki.v10i1
e-ISSN 2477-3743 | p-ISSN 2541-0024

Population and Sample

The study sampled the entire population, meaning all eligible individuals were included as respondents. The sampling method used is total population sampling, where all members of the population who meet the inclusion criteria are taken as respondents in this study, with a total sample size of 52 nurses. Qualitative data analysis uses the thematic frameworks analysis method with 5 participants.

Instrument

The first stage, data collection was carried out using the AHRQ (Agency for Healthcare Research and Quality) 2004 questionnaire titled "Hospital Survey on Patient Safety Culture" to describe the patient safety culture in the hospital. The research was conducted using the patient safety culture questionnaire from the Agency for Healthcare Research and Quality (AHRQ), which has been translated into Indonesian and approved for use by PERSI (Tambajong et al., 2022). The questionnaire consists of 50 questions, including 29 questions for the unit-level dimension, 11 questions for the hospital-level dimension, 4 questions for the output dimension, and 6 questions for respondent background variables. After that, data was collected and analyzed from in-depth interviews. Interviews were conducted using an interview guide containing 10 questions related to the implementation of the patient safety program in the hospital. The interviews were conducted with 5 participants and recorded using audio recorders.

Research Procedure and data analysis

The research began by obtaining informed consent from prospective respondents and participants. The respondents and participants are nurses who work in pre-post partum and perinatology units. Data collection was carried out using the AHRQ (Agency for Healthcare Research and Quality) 2004 questionnaire titled "Hospital Survey on Patient Safety Culture" to describe the patient safety culture in the hospital. After that, data was collected and analyzed from in-depth interviews. Data in this research was obtained through the collection gathered from respondents' answers to questionnaires about patient safety culture, patient safety incident reporting, and interview results. The data collected within the data collection period was processed using SPSS 25.0. For the univariate test, central tendency was used by calculating the mean and percentage. Following the collection of data from the AHRQ quesionaire, the next step was to process or analyze the obtained data. Subsequently, these results were reinforced or compared with interview results from the hospital's patient safety team as an effort to assess the implementation of the patient safety culture in the hospital.

Ethical Clearance

This article has been ethically tested by The Ethic Committee of Nursing and Health Research Faculty of Nursing, University of Riau with register number 947/UN19.5.1.8/ KEPK.FKp/2023.

DOI: https://doi.org/10.17509/jpki.v10i1
e-ISSN 2477-3743 | p-ISSN 2541-0024

3. RESULTS

The frequency of positive responses to the 12 dimensions of patient safety culture in pre-post partum and perinatology wards is presented in Table 1 as follows:

Table 1. Frequency of Positive Responses to The 12 Dimensions of Patient Safety Culture

Dimension of Safety Culture	Frequency (f)	Persentage (%)	Mean±SD
Management support for patient safety			15.9±2.375
Positive	22	42.3	
Negative	30	57.7	
Supervisor/manager expectations and actions promoting patient safety			15.94±2.24
Positive	41	78.8	
Negative	11	21.2	
Organisational learning–continuous improvement			10.68±2.045
Positive	21	40.4	
Negative	31	59.6	
Frequency of events reported			10.58±1.162
Positive	9	17.3	
Negative	43	82.7	
Overall perceptions of patient safety			10.88±2.027
Positive	32	61.5	
Negative	20	38.5	
Feedback and communication about error			12.54±1.092
Positive	22	42.3	
Negative	30	57.7	
Communication openness			10.8±1.773
Positive	18	34.6	
Negative	34	65.4	
Teamwork within units			9.5±2.573
Positive	30	57.7	
Negative	22	42.3	
Teamwork across units			13.56±1.327
Positive	31	59.6	
Negative	21	40.4	
Staffing			15.58±1.774
Positive	12	23.1	
Negative	40	76.9	
Handoffs and transitions			16.3±1.282
Positive	37	71.2	
Negative	15	28.8	
Non-punitive response to error			12.52±1.705
Positive	16	30.8	
Negative	36	69.2	

One of the twelve dimensions of patient safety culture had the highest percentage of positive responses, namely the supervision dimension, at 78.8%, while the reporting frequency dimension had the lowest percentage of positive responses at 17.3%. This data is supported by respondents' answers regarding patient safety incident reporting over the past 12 months, 44% of respondents stated that there were no reported patient safety incidents in the last 12 months. This indicates that patient safety culture in pre-post partum and perinatology wards is still not optimally implemented.

DOI: https://doi.org/10.17509/jpki.v10i1
e-ISSN 2477-3743 | p-ISSN 2541-0024

Interviews about the implementation of patient safety in this hospital were conducted with 3 members of the Hospital Patient Safety Team and head nurses from each unit. The summarized results of in-depth interviews conducted with informants can be seen in Table 2.

Table 2. The Summarized Results of In-Depth Interviews Conducted with Informants

Theme	Result
Patient Safety Program	Patient Safety Program The Patient Safety Program is already incorporated into policies such as Director's Decrees and SOPs, but its implementation is not yet optimal.
Performance of the Patient Safety Team	The performance of the Patient Safety Team is considered to be still suboptimal and lacking focus due to the workload of each member.
Socialization/training on patient safety	Socialization/training on patient safety has been conducted, although it has not been continuous.
Evaluation of Patient Safety Culture	Evaluation of Patient Safety Culture Evaluation of patient safety culture has never been conducted
Understanding of Staff Regarding Patient Safety Culture	Understanding of Staff Regarding Patient Safety Culture Staff are aware of the existence of patient safety culture but are not supported by adequate facilities. Moreover, they have not accustomed themselves to practicing patient safety culture.
Patient Safety Incident Reporting	Patient Safety Incident Reporting Patient safety incidents are not reported adequately, and there is no proper reporting system in place.
Barriers to Implementing Patient Safety Culture	Barriers to Implementing Patient Safety Culture Barriers in implementing patient safety culture include healthcare staff behavior and management support in providing adequate facilities.

Based on the interview results, implementing a patient safety culture faces several obstacles, including healthcare workers' behavior and a lack of sufficient management support in providing adequate facilities. Although the Patient Safety Program is detailed in policies such as Director's Decrees and SOPs, its execution has not been optimal. The Patient Safety Team's performance is hindered by each member's heavy workload, leading to suboptimal and unfocused efforts. Furthermore, patient safety incidents are not reported adequately due to the absence of a proper reporting system.

4. DISCUSSION

Management Support for Patient Safety Dimension

The positive response to the management support dimension is 42.3%. Ideally, this dimension should be strong, as the successful implementation of the patient safety program depends on management support. Based on interviews with healthcare workers, the management support is still perceived as lacking, particularly regarding the completeness of facilities and the insufficient training provided to staff for the implementation of patient safety. Hospital management provides a work climate that promotes patient safety and shows that patient safety is a top priority (Tartaglia Reis et al., 2018).

Supervisor/Manager Expectations and Actions Promoting Patient Safety

DOI: https://doi.org/10.17509/jpki.v10i1
e-ISSN 2477-3743 | p-ISSN 2541-0024

Supervisors/managers consider staff suggestions for improving patient safety, praise staff for following patient safety procedures and do not overlook patient safety problems (Carlesi et al., 2017). Each department is overseen by a head or leader who supervises their subordinates. The supervision dimension received the highest percentage of positive responses, at 78.8%. Research by Berry, indicates a positive correlation between transformational leadership and the adoption of a patient safety culture, highlighting leadership as the capability to inspire and guide others (Berry et al., 2020)

Organisational Learning–Continuous Improvement

The organizational learning dimension shows a positive response rate of 40.4%. It encompasses surveys and evaluations of activities. Interviews with multiple informants revealed that there have been no surveys or evaluations conducted regarding patient safety culture to date. Franklin suggests that organizational learning emphasizes leveraging individual-level learning processes to transform the organization in ways that can enhance stakeholder satisfaction (Franklin et al., 2020). By hiring individuals with specific competencies and knowledge acquired through their work or formal education, organizations stand to benefit from the diverse activities of these educated individuals.

Frequency of Events Reported

The research findings indicate that the Reporting Frequency dimension has the lowest positive response percentage at 17.3%. This aligns with the responses of 44% of respondents who stated that no incidents were reported in the last 12 months, indicating that incident reporting systems are not well organized. According to Najihah (2018), reporting patient safety incidents can improve patient safety culture implementation to prevent such incidents (Najihah, 2018). However, many healthcare professionals still neglect reporting incidents because they believe they can handle incidents themselves and only report when injury occurs. Effective reporting of patient safety incidents can help identify risks in potentially hazardous patient safety incidents (Gqaleni & Mkhize, 2024).

Non-Punitive Response to Error

The error response dimension showed a low positive response rate of 42.3%. Non-punitive responses indicate that recognition of service errors is not met with punishment but with the identification of issues and contributing factors. These findings are consistent with the Canadian Nurse Association, which states that non-punitive responses to errors remain a barrier to safe nursing care provision (Espin et al., 2019). Medical errors are more likely due to hospital system errors that disrupt various system chains rather than human errors. This aligns with AHRQ findings, as hospital surveys on patient safety culture have found that non-punitive responses to errors are still a low component of positive responses.

Overall Perceptions of Patient Safety

Healthcare workers' perceptions of patient safety culture stem from their cognitive processes while delivering health services. The study's perception dimension received a positive response rate of 61.5%, suggesting that healthcare workers have a sufficient understanding of patient safety culture to date, yet improvements are needed for optimal implementation of patient safety

DOI: https://doi.org/10.17509/jpki.v10i1
e-ISSN 2477-3743 | p-ISSN 2541-0024

programs. Increasing the proportion of skilled and experienced nurses can enhance understanding and perceptions of patient safety programs, thereby reducing patient safety incidents (Sommer et al., 2019).

Communication Openness

The communication openness dimension has a positive response rate of 34.6%. Communication errors can increase patient safety incidents. Communication occurs not only between healthcare workers and patients, but also among healthcare workers, both medical and non-medical staff. Effective communication patterns depict mutual trust and openness. Good information flow and processing enhance patient safety culture (Folger et al., 2021).

Teamwork within Units

Teamwork within units dimension shows a positive response rate of 57.7%, indicating that healthcare workers have effectively established cooperation in delivering health services. Further enhancements in this area are encouraged to improve the performance of each department.

Teamwork Across Units

The inter-unit cooperation dimension has a positive response rate of 59.6%. This indicates that healthcare workers are cohesive in collaborating and coordinating with each other in delivering healthcare services. Effective coordination between teams is crucial to ensure smooth operations and error-free services (Berry et al., 2020).

Staffing

The positive response rate for the staff dimension is 23.1%. This indicates that the hospital staff is insufficient. The problem lies in the shortage of healthcare workers, leading to excessive working hours for the existing staff. This is evidenced by the higher number of healthcare workers who work more than 40 hours per week. Excessive working hours can also trigger stress. An individual's stress condition is determined by the balance between the demands placed on them (such as workload) and the resources they possess to meet those demands (such as experience and skills). When the demands exceed their capabilities, it can lead to unpleasant conditions such as anxiety or feelings of unwellness, lack of concentration, or irritability.

Handoffs and Transitions

The transfer and handoff dimension has a positive response rate of 71.2%. This dimension pertains to the coordination among healthcare workers during shift changes, where patient data and information are often lost. Similarly, patient transfers must be conducted professionally and efficiently. Hospitals, particularly in pre-postpartum and perinatology wards, need to improve or innovate their transfer and handoff procedures. Research by Do Carmo indicates that medical errors decreased following the implementation of the Handoff program and communication training in the transfer and handoff processes (Do Carmo et al., 2020).

Feedback and Communication About Error

DOI: https://doi.org/10.17509/jpki.v10i1
e-ISSN 2477-3743 | p-ISSN 2541-0024

Therefore, it is concluded that the implementation of patient safety programs have not been optimal. If an incident occurs, it is essential to respond promptly to the report, identify the error immediately, and find a solution. Following this, an evaluation should be conducted to determine how to prevent the incident from recurring. This can be seen from the existing gap in reporting conducted by the hospital's patient safety team and the research results from respondents. Additionally, interviews conducted with the hospital's patient safety team indicate that the suboptimal implementation of incident reporting in patient safety actually stems from the units themselves, namely the lingering fear of a blame culture, which results in reluctance of units/individuals to report incidents (Pramesona et al., 2023). Furthermore, inadequate management support, characterized by delayed feedback on patient safety incident reports from the KPRS Team, also serves as a significant reason.

5. CONCLUSION

The uptake of patient safety culture remains notably low. Obstacles in implementing a patient safety culture consist of the behavior of staff who have not yet accustomed themselves to practicing the patient safety culture and the support from management in the implementation of the patient safety culture itself, such as the response to improving existing facilities. The recommendations given to ensure the successful implementation of the patient safety culture include the formation of a Hospital Patient Safety Team (KPRS), education, and regular monitoring. The KPRS team is expected to create a work program that includes a good reporting system that is easily understood by all staff. Recommendations to improve patient safety culture include reducing blaming culture, ensuring every nurse feels safe to report all types of patient safety incidents occurring in hospitals. Additionally, facilities and resources such as reporting system, need to be improved so that patient safety programs can operate optimally as intended.

6. CONFLICT OF INTEREST

The authors state no conflict of interest.

7. REFERENCES

Berry, J. C., Davis, J. T., Bartman, T., Hafer, C. C., Lieb, L. M., Khan, N., & Brilli, R. J. (2020). Improved Safety Culture and Teamwork Climate Are Associated with Decreases in Patient Harm and Hospital Mortality Across a Hospital System. *Journal of Patient Safety*, *16*(2), 130–136.

Carlesi, K. C., Padilha, K. G., Toffoletto, M. C., Henriquez-Roldán, C., & Juan, M. A. C. (2017). Patient Safety Incidents and Nursing Workload. *Revista Latino-Americana de Enfermagem*, *25*, e2841.

Do Carmo, J. M. A., Mendoza, I. Y. Q., Goveia, V. R., Souza, K. V. de, Manzo, B. F., & Guimarães, G. de L. (2020). Culture of patient safety in hospital units of gynecology and obstetrics: a cross-sectional study. *Revista Brasileira de Enfermagem*, *73*(5), 1–7.

DOI: https://doi.org/10.17509/jpki.v10i1
e-ISSN 2477-3743 | p-ISSN 2541-0024

Espin, S., Carter, C., Janes, N., & McAllister, M. (2019). Exploring Health Care Professionals' Perceptions of Incidents and Incident Reporting in Rehabilitation Settings. *Journal of Patient Safety*, *15*(2), 154–160.

Folger, J. P., Scott Poole, M., & Stutman, R. K. (2021). *Working Through Conflict; Strategies for Relationships, Groups, and Organizations; Ninth Edition*. www.routledge.com/cw/folger.

Franklin, B. J., Gandhi, T. K., Bates, D. W., Huancahuari, N., Morris, C. A., Pearson, M., Bass, M. B., & Goralnick, E. (2020). Impact of multidisciplinary team huddles on patient safety: A systematic review and proposed taxonomy. *BMJ Quality and Safety*, *29*(10), 844–853.

Gqaleni, T. M. H., & Mkhize, S. W. (2024). Barriers to implementing patient safety incident reporting and learning guidelines in specialised care units, KwaZulu-Natal: A qualitative study. *PloS One*, *19*(3), e0289857.

Kalabharathi, D. S., & N, B. (2021). Assess the nurses perception of patient safety culture and safety control in patient safety management activities. *International Journal of Midwifery and Nursing Practice*, *4*(2), 107–109.

Kemenkes. (2023). *Turunkan Angka Kematian Ibu melalui Deteksi Dini dengan Pemenuhan USG di Puskesmas*. https://www.kemkes.go.id/article/view/23011600002/turunkan-angka-kematian-ibu-melalui-deteksi-dini-dengan-pemenuhan-usg-di-puskesmas.html

Kemenkes RI. (2017). Peraturan Menteri Kesehatan Republik Indonesia Nomor 11 Tahun 2017 Tentang Keselamatan Pasien. *Journal of Materials Processing Technology*, *1*(1), 1–8.

Najihah. (2018). Budaya Keselamatan Pasien Dan Insiden Keselamatan Pasien Di Rumah Sakit: Literature Review. *Journal of Islamic Nursing*, *3*(1), 1.

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. *Revista Brasileira de Enfermagem*, *76*(4), 1–8.

Rahmawati, N., Pramesty, M. H. E., Karno, F., Aprilia, Y. U. (2023). *Lasterisasi Kesehatan Ibu Dan Anak Di Indonesia Dengan Menggunakan Algoritma K-Means. Snhrp, 2030,*. 599–608.

Sommer, S., Johnson, J., Ball, B. S., Lemon, T., Bousquet, T., & Traynor, J. (2019). *Nursing Leadership And Management I Nursing Leadership And Management Review Module Edition 8.0 Intellectual Property Notice Ati Nursing Is A Division Of Assessment Technologies Institute ® , Llc. Reprinted March 2021 Ii Content Mastery Series*.

Sorra, J., Gray, L., Streagle, S., Famolaro, T., Yount, N., & Behm, J. (2018). Hospital survey on patient safety culture: user's guide. In *Agency of Healthcare Research in Quality*. www.ahrq.gov

Tambajong, M. G., Pramono, D., & Utarini, A. (2022). Adaptasi Linguistik Kuesioner Hospital Survey on Patient Safety Culture ke Versi Indonesia. *The Journal of Hospital Accreditation*, *04*, 17–27.

Tartaglia Reis, C., Paiva, S. G., & Sousa, P. (2018). The patient safety culture: A systematic review by characteristics of Hospital survey on patient safety culture dimensions. *International Journal for Quality in Health Care*, *30*(9), 660–677.

DOI: https://doi.org/10.17509/jpki.v10i1
e-ISSN 2477-3743 | p-ISSN 2541-0024

DOI: https://doi.org/10.17509/jpki.v10i1
e-ISSN 2477-3743 | p-ISSN 2541-0024