



OPTIMIZATION OF MENTORSHIP IMPLEMENTATION TO ENHANCE THE
COMPETENCE OF ROTATING NURSES IN THE NICU

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ABSTRACT

X Hospital Jakarta Barat is a hospital that has implemented various competency development programs and continuing professional development initiatives for nurses. However, the implementation of mentorship as a clinical learning method has not yet run optimally and is not integrated across all units. A change is needed to optimize the implementation of mentorship activities by strengthening the roles and functions of nurse managers. Objective to optimize mentorship implementation in the NICU by strengthening nurse managers' roles to enhance clinical competence and structured learning. This was a pilot project. The process started with problem identification, problem analysis, priority setting, preparation of a Plan of Action, implementation, and evaluation using Lewin's change theory approach. The implementation of mentorship in the NICU showed an increase in clinical learning activities, with mentees beginning to independently carry out self-reflection without direct supervision. Mentors also felt assisted in monitoring mentee development through the provided guidelines and documentation formats. The head nurse and team leaders supported this program and were ready to facilitate its sustainability. Strengthening managerial roles improved mentorship implementation, increased mentee reflection, and enhanced mentor monitoring. With strong managerial support and clear documentation, mentorship can be sustainably integrated into institutional competency programs.

Keywords: competency; development; mentee; mentor; mentorship; NICU

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INTRODUCTION

High-quality nursing care plays a vital role in ensuring the overall quality of hospital services, particularly in intensive care units such as the Neonatal Intensive Care Unit (NICU). Critical thinking competence is a key determinant of nursing care quality, as it enables nurses to conduct comprehensive assessments, establish accurate diagnoses, and plan and implement interventions according to patient needs (Bae et al., 2023; Rosdiani et al., 2025). This ability not only improves the effectiveness of interventions but also significantly reduces the risk of medical errors while enhancing patient safety and satisfaction (Zainal et al., 2025).

Previous studies have shown that mentorship programs are effective in enhancing nurses' clinical reasoning skills. Geist et al. (2024) found a significant increase in nurses' critical thinking scores following participation in mentorship programs based on critical reflection. Mentorship facilitates not only the transfer of technical knowledge but also the development of a reflective environment that supports deep learning. Similarly, Hagrass et al. (2023) demonstrated that formal mentorship training improved mentors' effectiveness in fostering critical thinking skills among mentees.

The optimization of mentorship programs requires managerial support from head nurses. Robbins & Judge (2023) emphasized that head nurses hold interpersonal, informational, and decisional roles

across the functions of planning, organizing, staffing, actuating, and controlling, which are crucial to ensuring structured competency development. Hookmani et al. (2021) further highlighted the involvement of head nurses in mentorship implementation through supervision, use of checklists, and direct mentor guidance.

Based on preliminary assessment, the Kemuning NICU of RS X functioning as a level 3–4 NICU managing highly complex cases and respiratory support experienced an increase in neonatal patient capacity from 12 to 20 beds. This surge was driven by a growing number of referrals requiring advanced intensive care. To meet these demands, nurses were rotated from the Seruni NICU, a level 2 unit managing lower-complexity cases without respiratory support, to the Kemuning NICU. Mentorship was chosen as a strategic approach to facilitate adaptation and strengthen the competence of rotating nurses, as it integrates knowledge improvement, professional attitude formation, and clinical behavior enhancement through reflective learning and direct interaction with experienced mentors.

The head nurse designated mentors and mentees based on specific criteria. Mentees were rotating nurses from the level 2 NICU (Seruni) to the level 3–4 NICU (Kemuning). Mentors were required to hold at least a Bachelor of Nursing degree, be at least at Clinical Nurse Career Level PK II, and have undergone prior mentorship training. In practice, all mentors in the Kemuning NICU had already reached Clinical Nurse Career Level PK III and completed formal mentorship training, with a total of seven active mentors involved. Mentees consisted of 24 rotating nurses from the Seruni NICU assigned to the Kemuning NICU.

Previously, mentorship training was part of an intervention in a Master's thesis project at the Faculty of Nursing, Universitas Indonesia. However, since the NICU was not included in the intervention unit, actual mentorship implementation had not yet been carried out. When the residency program commenced, mentors and mentees had already been appointed, but the mentorship process itself had not yet been initiated. Therefore, optimizing mentorship activities in the NICU of RS X is necessary. This effort is expected not only to enhance critical thinking skills and self-confidence among clinical nurses but also to support the hospital's mission of delivering safe, effective, and high-quality maternal and child health services.

METHOD

This study employed a pilot project design. The activities included problem identification, problem analysis, problem prioritization, development of a Plan of Action (POA), implementation, and evaluation. Data collection methods included questionnaires, interviews, and observations. All respondents who participated in interviews and questionnaires provided informed consent. Following data collection, the researcher conducted problem analysis using a fishbone diagram, covering the factors of man, material, method, money, machine, and information. Subsequently, problem prioritization was carried out, followed by POA development using the POSAC approach, implementation, evaluation, and formulation of follow-up plans. The pilot project was conducted in the NICU of RS X Jakarta, with the location

RESULT

Interviews

The interviews revealed that the nursing competency development program at Hospital X had long been planned through continuous training and education; however, a structured mentorship program had never been formally implemented, with only a preceptorship program available for new nurses. The mentorship program only emerged as a follow-up to a master's research project, but its implementation in the NICU has not yet been evenly distributed. The head nurse explained that mentors and mentees had already been designated, yet the process was still limited. Several staff nurses were reported to lack confidence in providing comprehensive patient reports and making

clinical decisions, particularly in critical situations such as desaturation management or interpreting ABG results. A team leader emphasized that the limited competencies of staff nurses required team leaders to continue handling high-acuity patients themselves, underlining the importance of strengthening the mentorship program to accelerate competency development and ensure a more proportional distribution of workload.

Observations

Direct observations in the NICU showed that the head nurse had assigned mentors and mentees based on work experience and clinical competence. Nevertheless, the implementation of mentorship was not yet optimal, as there were no written guidelines, no scheduled mentoring sessions, and no use of logbooks for documentation. This condition illustrates that although the foundation for mentorship has been initiated, further reinforcement through formal guidelines and a clear monitoring system is needed to ensure a structured and sustainable process.

Questionnaires

The questionnaire results indicated that the majority of staff nurses had a positive perception of the importance of mentorship in supporting their professional development. This finding demonstrates readiness and acceptance among staff toward the program, even though its implementation still requires strengthening.

A total of 47.8% of nurses agreed and 52.5% strongly agreed that the mentorship program is an important effort to support the improvement of nurses' competence in the NICU. In addition, 65.2% of respondents agreed and 34.8% strongly agreed that the role of the mentor plays a key function in strengthening the clinical competence of nurses in the neonatal intensive care unit. Furthermore, all respondents (100%) expressed their willingness to participate in mentorship activities, indicating a high level of staff commitment to supporting the implementation of the mentorship program in the unit.

The questionnaire results also revealed that the competency areas most frequently identified by mentees as requiring guidance included neonatal resuscitation management, ventilator management, chest drain (WSD) monitoring, interpretation of arterial blood gas (ABG) analysis, oxygenation management, and effective communication with attending physicians. These findings highlight the priority need to enhance nurses' clinical skills in managing high-risk neonatal conditions, further emphasizing the urgency of implementing a structured mentorship program in the NICU. Following the data collection, problem analysis was conducted using the fishbone diagram approach (5M+1T), which identified three key issues in Unit X. These issues were subsequently prioritized through a weighting process.

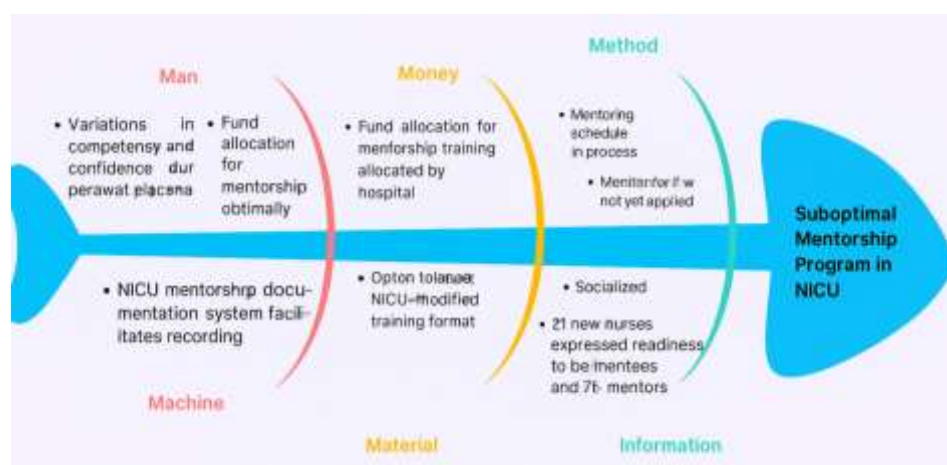


Figure 1. Fishbone Diagram

Based on the root cause analysis using a Fishbone Diagram, several factors were identified as contributing to the suboptimal implementation of the mentorship program in the NICU. In terms of Man, variations in the competence levels of staff nurses were found to affect the progress of the program. Although mentors and mentees had been designated, the implementation was not running optimally, resulting in inconsistent guidance. From the perspective of Machine, a mentorship documentation system was already available to facilitate record-keeping, but its use was not yet maximized to routinely capture all mentorship activities. In the aspect of Money, hospital funding had already been allocated for mentorship training, thus financial resources were not a major barrier. Regarding Material, mentorship guidelines, forms, and logbooks were already prepared as references, including options for adjusting training formats to the NICU context; however, these documents were still in the process of being adapted.

From the Method perspective, the mentorship program already had a workflow and schedule in place, though implementation had not yet fully aligned with the plan. Mentorship was also socialized to staff by nursing managers, but consistency remained an issue. Finally, in terms of Information, 24 NICU nurses had expressed readiness to become mentors, although ongoing support was still needed to build their confidence in fulfilling this role. This fishbone analysis illustrates that the NICU mentorship program already had essential foundations in place such as available guidelines, allocated funding, and human resources support yet required strengthening in areas of consistent implementation, documentation, and mentor support to ensure the program's effectiveness and sustainability. The weighting analysis revealed that the highest-priority problems were the mentorship program's inconsistent execution despite designated mentors and the variation in competence among staff nurses. To address these issues, a Plan of Action (POA) was developed using the managerial functions of the head nurse based on the POSAC framework (Planning, Organizing, Staffing, Actuating, Controlling).

The implementation of the mentorship program in the NICU followed the POSAC management framework. Planning involved the establishment of an implementation team consisting of the head nurse, clinical instructors (CIs), and residency students, with the objective of agreeing on the mentorship plan, schedule, and necessary supporting documents such as guidelines and forms. In the Organizing and Staffing stage, the team drafted mentorship guidelines tailored to NICU needs, modified logbook reflection formats and competency evaluation sheets to be more practical, and identified mentor-mentee pairs based on clinical competence and experience. The Actuating phase was carried out through an initial socialization session led by the head nurse with all mentors and mentees, which introduced the importance of mentorship, explained the implementation process, and demonstrated the use of supporting forms; this session also served as a forum to identify potential barriers and strengthen staff commitment. Finally, in the Controlling stage, evaluations were conducted through direct observation of the mentoring process, logbook reviews, and short interviews with mentors and mentees regarding their initial experiences. The results showed an increase in average knowledge scores from 73.33 to 90.59 following the socialization of the mentorship guidelines and SOPs, indicating the intervention's effectiveness in improving nurses' understanding of the process. Furthermore, the head nurse, in collaboration with the CIs, scheduled mentor-mentee meetings every two weeks with monthly evaluations during staff meetings, while adjusting duty rosters to support mentorship activities, which are planned to continue over the next six months. This analysis highlights that optimizing the head nurse's managerial role through the POSAC approach contributes significantly to facilitating the mentorship program, which is expected to enhance NICU nurses' competence, support patient safety, and establish mentorship as a sustainable clinical learning initiative.

DISCUSSION

The mentorship program in the NICU of Hospital X, West Jakarta, was designed as an effort to optimize the role and function of nurse managers in improving the competence of rotation nurses.

Problem analysis using a fishbone diagram revealed that the main factors influencing the suboptimal implementation of mentorship were variations in staff nurses' competencies, the absence of supporting forms, and the fact that although mentors and mentees had been designated, the mentorship process itself was not yet functioning optimally.

Problem resolution was formulated through the development of a Plan of Action (POA) using the management functions of the head nurse, namely POSAC (Planning, Organizing, Staffing, Actuating, Controlling). In the planning stage, the head nurse and the team prepared a plan for the formation of an implementation team and the required supporting documents. The organizing and staffing stage focused on drafting mentorship guidelines, identifying mentor-mentee pairs, and adjusting forms to align with the characteristics of neonatal intensive care. Subsequently, the actuating stage involved socializing the mentorship guidelines and carrying out the mentoring activities. Finally, the controlling stage was realized through initial evaluations of mentorship implementation, including observation, questionnaires, and interviews.

In Lewin's Change Theory framework, the unfreezing stage was conducted through identifying the need for change and reaching a shared agreement on the importance of a more structured mentorship program. The change stage was reflected in the pairing of mentors and mentees, the use of guidelines and logbooks, and the socialization activities. The refreezing stage began with plans for regular monitoring, periodic evaluations, and efforts to institutionalize mentorship as part of the work culture in the NICU. Evaluation results showed an improvement in nurses' knowledge after the socialization of the mentorship guidelines and SOPs, with average scores increasing from 73.33 to 90.59. This indicates that the educational materials effectively enhanced nurses' understanding of the mentorship process. These findings are consistent with DeWitty (2017), who emphasized that structured orientation and education play a crucial role in successful mentorship implementation.

Nevertheless, mentorship implementation in the NICU faced specific challenges. The duty schedules of mentors and mentees did not always align, making simultaneous mentoring difficult, even though biweekly meetings had been planned to address this issue. In addition, the dynamic nature of NICU care such as patient desaturation events or equipment alarms requires prioritization of patient safety, meaning mentorship activities must adapt to situational demands. This underscores the need for flexible mentorship strategies to remain effective in intensive care settings.

From the mentees' perspective, most stated that the reflection format was easy to use and helpful in fostering critical thinking. However, they suggested that mentorship activities should also include emotional support, as well as standardization of content and schedules. This highlights that mentorship is important not only for technical competence but also for psychosocial aspects that can enhance nurses' confidence and retention (Mikkonen et al., 2021). Meanwhile, mentors reported that the forms and logbooks were very useful in guiding the process and monitoring mentees' progress. They also provided valuable feedback regarding the need to adjust duty schedules so that mentors and mentees could more often work the same shifts. Overall, the NICU mentorship program requires further strengthening in terms of scheduling and emotional support. With continued development, the program has the potential to become a sustainable competence-building strategy that positively impacts NICU nurses.

CONCLUSION

Optimizing the role and function of nurse managers through the mentorship program in the NICU of Hospital X, West Jakarta, has been successfully initiated, although adjustments are still needed in scheduling and regulatory reinforcement. The implementation of mentorship is expected to enhance clinical learning activities, foster reflective thinking among staff nurses, and lay the foundation for a sustainable program.

REFERENCES

- Bae, J., Lee, J., Choi, M., Jang, Y., Park, C. G., & Lee, Y. J. (2023). Development of the clinical reasoning competency scale for nurses. *BMC Nursing*, 22, 138. <https://doi.org/10.1186/s12912-023-01244-6>
- Dennis, V. (2022). The value of mentorship in nursing. *AORN Journal*, 116(3), 215–217. <https://doi.org/10.1002/aorn.13769>
- DeWitty, V. P. (Ed.). (2017). *Mentorship: A student success strategy. Mentoring program toolkit* (3rd ed.). American Association of Colleges of Nursing; Robert Wood Johnson Foundation New Careers in Nursing Scholarship Program.
- Geist, N. C., Browning, M., & Messick, A. (2024). Development of a critical reflection mentorship program to enhance critical thinking among novice nurses. *Journal of Continuing Education in Nursing*, 55(9), 456–460. <https://doi.org/10.3928/00220124-20240718-01>
- Hadi, M., & Nursalam. (2020). *Pendidikan klinis keperawatan dengan pendekatan preceptorship*. UM Jakarta Press.
- Hagrass, H. M., Ibrahim, S. A. E.-A., Anany, R. I. E.-S., & El-Gazar, H. E. (2023). Effect of an educational program about mentorship competencies on nurse mentors' performance: A quasi-experimental study. *BMC Nursing*, 22, 429. <https://doi.org/10.1186/s12912-023-01597-y>
- Hookmani, A. A., Lalani, N., Sultan, N., Zubairi, A., Hussain, A., Hasan, B. S., & Rasheed, M. A. (2021). Development of an on-job mentorship programme to improve nursing experience for enhanced patient experience of compassionate care. *BMC Nursing*, 20(1), 175. <https://doi.org/10.1186/s12912-021-00682-4>
- Lake, E. T., Staiger, D. O., Cramer, E., Hatfield, L. A., Smith, J. G., Kalisch, B. J., & Rogowski, J. A. (2020). Association of patient acuity and missed nursing care in U.S. neonatal intensive care units. *Medical Care Research and Review*, 77(5), 451–460. <https://doi.org/10.1177/1077558718806743>
- Mikkonen, K., Riklikiene, O., Filej, B., & Kaučič, B. M. (Eds.). (2021). *Advanced mentorship competences: Modules I–III of advanced mentorship competences* [E-book]. College of Nursing in Celje.
- Mullen, C. A., & Klimaitis, C. C. (2021). Defining mentoring: A literature review of issues, types, and applications. *Annals of the New York Academy of Sciences*, 1483(1), 19–35. <https://doi.org/10.1111/nyas.14176>
- Peraturan Menteri Kesehatan Republik Indonesia Nomor 40 Tahun 2017 tentang Pengembangan Jenjang Karier Profesional Perawat Klinis. (2017). *Berita Negara Republik Indonesia Tahun 2017 Nomor 1317*.
- Robbins, S. P., & Judge, T. A. (2023). *Organizational behavior* (22nd ed.). Pearson.
- Rosdiani, R., Khoirunnisa, R., Velly, N. R., Komarudin, N., Ridwan, H., & Haryeti, P. (2025). The role of critical thinking in improving the quality of clinical nursing actions: Literature review. *Menara Journal of Health Science*, 4(2), 79–94.
- Wang, Y., Hu, S., Yao, J., Pan, Y., Wang, J., & Wang, H. (2024). Clinical nursing mentors' motivation, attitude, and practice for mentoring and factors associated with them. *BMC Nursing*, 23, 76. <https://doi.org/10.1186/s12912-024-01757-8>
- Zachary, L. J., & Fain, L. Z. (2022). *The mentor's guide: Facilitating effective learning relationships* (3rd ed.). John Wiley & Sons.
- Zainal, N. H., Islam, M. A., Rasudin, N. S., Mamat, Z., Hanis, T. M., & Hasani, W. S. R. (2025). Critical thinking and clinical decision making among registered nurses in clinical practice: A systematic review and meta-analysis. *Nursing Reports*, 15(5), 175. <https://doi.org/10.3390/nursrep15050175>