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DAILY COMPETENCY NOTES AS A STRATEGY TO OBSERVE THE DEVELOPMENT OF CLINICAL COMPETENCE OF NICU NURSES AT HOSPITAL X

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ABSTRACT
The daily competency log represents an innovative strategy to enhance nurses' clinical competency development, particularly in the high-complexity environment of the Neonatal Intensive Care Unit (NICU). This initiative aims to implement and evaluate the daily competency log as a structured tool for monitoring, reflection, and strengthening nursing professionalism at X Hospital. A quality improvement case report approach was applied, encompassing observation, interviews, questionnaires, implementation, and evaluation phases. This study involved 29 NICU nurses selected through total sampling to evaluate the implementation of a Daily Nursing Competency Log. The instrument showed good validity ($r > 0.514$) and high reliability (Cronbach's Alpha = 0.87), supporting its effectiveness in improving documentation, reflection, and professional accountability among nurses. Prior to its introduction, no structured competency documentation system existed, not all NICU nurses were certified, and nurse placement was not fully aligned with competency levels. Through pilot testing, socialization, and ongoing mentorship, the daily competency log was successfully introduced and gradually adopted. Digital evaluation indicated that nurses perceived the tool as beneficial for recording daily nursing practices, despite technical limitations such as suboptimal formatting and inefficient competency search features. Conducted collaboratively with the Assistant Manager of Nursing Care, the initiative also established a follow-up plan to refine the system and its content. In conclusion, the daily competency log contributes positively to the advancement of NICU nurses' clinical competencies and holds significant potential for sustainable integration into the hospital's nursing human resource quality management system.

Keywords: case report; daily competency log; management function; clinical competence; NICU nurses

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INTRODUCTION

Caring for newborns in the Neonatal Intensive Care Unit (NICU) represents one of the greatest challenges in modern nursing practice. At this stage, infants are generally in critical condition and physiologically unstable, requiring immediate, precise, and well-coordinated interventions (Disma et al., 2021). The complexity of such care demands a high level of clinical readiness and competence among nursing staff. However, the heavy workload often faced by NICU nurses frequently leads to missed nursing care—omissions of essential nursing actions—which can negatively affect patient safety and clinical outcomes (Alsalem, 2023). Both international and national studies have shown that excessive workloads not only reduce the quality of care but also increase the risk of fatigue, stress, and even burnout among nurses (Abualrub et al., 2025). One of the main factors contributing to the phenomenon of missed care is the suboptimal monitoring and continuous development of nursing competencies (Alsalem, 2023). In the absence of a structured documentation system, it is difficult to objectively assess nurses' clinical abilities, thereby limiting

opportunities for reflection on daily nursing practice (Zaitoun, 2024). This situation results in insufficient information regarding both the strengths and areas for improvement of individual nurses.

A similar situation is observed at Hospital X, particularly in the NICU. Observations conducted during the residency program revealed that both the Nurse Unit Manager (NUM) and the Clinical Care Manager (CCM) confirmed the absence of any systematic daily competency documentation. Nursing activities are not yet classified according to competency levels, evaluation processes remain informal, and no consistent system exists to support continuous clinical competency monitoring. Nurse assignments are not fully based on competency data, and a culture of clinical reflection has not yet been established. In the context of strengthening the quality of nursing human resources, innovations are needed that not only enhance accountability in nursing practice but also promote continuous professional development (Mlambo, 2021). One approach that can address these needs is the implementation of a daily competency log as a tool for documentation, reflection, and clinical practice evaluation. Integrating daily competency records has the potential to become an integral part of the Ongoing Professional Practice Evaluation (OPPE) system recommended by The Joint Commission (JCI). This would also reinforce evidence-based nursing credentialing processes in the NICU (Wit et al., 2023).

Although various efforts to enhance nursing competencies have been made through training, certification, and clinical supervision, these approaches are generally periodic and have not adequately addressed the need for daily and continuous competency monitoring (Farag et al.). This gap has led to a discrepancy between the expected competency standards and actual clinical practice, especially in the NICU, where rapid response and specific clinical skills are essential. Moreover, most existing nurse performance evaluation systems remain outcome-focused and lack real-time mechanisms for reflection and feedback that are essential for professional growth (Alkhaelaiwi et al., 2024).

The absence of tools that systematically document, monitor, and evaluate nurses' daily competencies often results in nursing resource development decisions that are not based on objective data. Therefore, there is a pressing need for innovative daily competency records as supporting instruments to identify competency gaps, facilitate clinical reflection, and integrate monitoring results into service quality improvement strategies and nursing credentialing systems. This study aims to develop and implement a Daily Nursing Competency Log System to improve documentation, monitoring, and evaluation of nurses' clinical competencies in the NICU, thereby enhancing accountability, professional development, and integration with quality and credentialing systems.

METHOD

The residency program employed a case report approach grounded in quality improvement, conducted in the Neonatal Intensive Care Unit (NICU) of Hospital X. This approach was chosen because it provides a comprehensive framework for identifying problems, developing innovative solutions through the implementation of daily competency records, and evaluating their impact on nursing practice and nurses' perceptions in the NICU (Zaitoun, 2024). Data collection was carried out comprehensively using multiple complementary methods. Direct observation of daily nursing activities was conducted to gain an in-depth understanding of workflow, task distribution, and the challenges faced by nurses in clinical practice. In addition, an in-depth interview with one Nurse Unit Manager (NUM) was conducted to obtain managerial perspectives on the existing competency development system and barriers to its implementation. To explore nurses' perceptions, experiences, and readiness to use daily competency records, a structured questionnaire was developed specifically for the NICU context. The questionnaire covered aspects related to the recording, implementation, and utilization of daily competency records as part of OPPE (Ongoing Professional

Practice Evaluation). The instrument showed good validity (r > 0.514) and high reliability (Cronbach's Alpha = 0.87), supporting its effectiveness in improving documentation, reflection, and professional accountability among nurses. The instrument was developed through collaborative discussions with experts in nursing management and competency development to ensure that the resulting indicators were relevant to the objectives of the program and tailored to the characteristics of critical care nursing services.

The implementation process was designed to be gradual and continuous to ensure measurable impact. The first phase involved problem identification through field observations and interviews to map the barriers to competency documentation and assess the need for a more ideal system. The second phase focused on designing a daily competency record format tailored to different levels of clinical competency, enabling a more objective representation of actual nursing abilities. Once the format was developed, socialization and pilot testing were conducted to assess its ease of use, level of acceptance, and effectiveness as a tool for documentation and clinical reflection. The final phase involved evaluating the completion of digital forms to collect feedback, identify strengths and challenges encountered, and develop recommendations for improvement so that the system could be sustainably integrated into nursing competency management processes. The collected data were analyzed descriptively and narratively to provide a comprehensive overview of the initial conditions, changes observed during implementation, and the impact on nursing accountability and professional development.

Problem Identification

A root cause analysis was conducted using a fishbone diagram and the Planning, Organizing, Staffing, Actuating, and Controlling (POSAC) management framework to explain the challenges in implementing competency management in the NICU. This analysis identified multiple interrelated managerial factors influencing competency documentation and development. The results of the fishbone diagram analysis are presented in Figure 1.

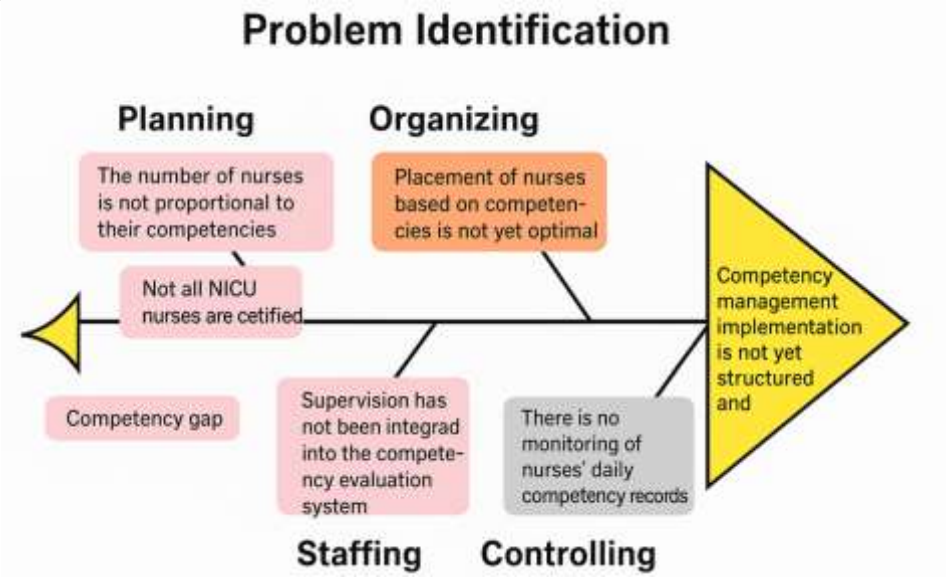

Figure 1. Fishbone Diagram

Based on the POSAC approach, several gaps were identified across different management functions. In the planning aspect, nurse training had not been comprehensively implemented: out of 29 nurses, only 4 had attended NICU training, indicating limited competency development coverage and the need for a more structured training plan. In terms of organizing, nurse placement did not fully consider individual competency levels, resulting in suboptimal human resource distribution. This competency gap was further identified as a staffing issue, as the current composition and allocation of nurses did not meet the competency requirements of the unit, potentially compromising the quality of care. In the actuating phase, supervisory activities—which should serve as an integral part of competency development—were not systematically integrated into

performance evaluation mechanisms. Finally, under controlling, there was no consistent system for daily competency monitoring and documentation. Consequently, nurses lacked adequate records to support periodic evaluations, follow-up reflections, and data-based decision-making for competency development and improvement.

These findings indicate that competency management in the NICU has not been structured or implemented consistently, limiting its contribution to strengthening nursing professionalism and supporting continuous quality improvement. The main barrier lies in the absence of an integrated and sustainable competency documentation system. As a result, available data cannot be optimally utilized for coaching, monitoring, and performance evaluation. To address these gaps, an intervention is required in the form of a competency recording system that is integrated into daily workflows, equipped with measurable indicators, and easy to track. Such a system can provide a reliable basis for professional development and managerial decision-making, thereby reinforcing competency governance in a systematic and continuously improving manner (Otamurodov, 2021).

RESULT

The interview with the Nurse Unit Manager (NUM) revealed that daily task allocation in the NICU of Hospital X was determined primarily by nurse line assignments and ward conditions, rather than by documented competency data. As a result, staffing decisions did not fully take NICU certification into account, formal competency evaluation mechanisms were absent, and supervision was carried out informally without standardized evaluative documentation. This finding was supported by observations of ten Associate Nurses (PA), which showed that daily work planning was conducted through morning briefings and task distribution using a simple spreadsheet. This highlighted that the task allocation system was not integrated with competency records or systematic evaluation mechanisms. Although the organizing and actuating functions appeared to run relatively well, there was no formal supervision schedule, nor was there a clear delegation system when unit leaders were absent conditions that increase the risk of inconsistent follow-up actions.

The questionnaire results reinforced this pattern: the majority of nurses were not NICU-certified, and workload distribution tended to be heavier for more experienced nurses. Competency evaluations and supervisory activities were not performed consistently, and standardized competency assessment tools were not available. As a result, managerial processes lacked adequate monitoring and documentation support, making feedback difficult to trace and data-driven decision-making limited. The root cause analysis using the fishbone diagram within the POSAC framework revealed several key issues: in planning, the primary concern was the competency gap and the absence of certification-based mapping; in organizing, nurse placement was not fully competency-based; in actuating, supervision was not integrated into competency development processes; and in controlling, no systematic daily competency recording mechanisms existed, leading to undocumented feedback and limited follow-up actions. This sequence clearly illustrates a causal chain: the absence of a structured competency system at the upstream level leads to inappropriate task assignments, inconsistent supervision, and weak control mechanisms downstream.

DISCUSSION

The findings confirm that daily competency records have not yet been systematically integrated into nursing management in the NICU. Consistent clinical documentation is a key component of quality improvement and serves as a foundation for accountable professional development. Its absence limits opportunities for reflective practice and weakens data-based feedback mechanisms (Ebbers et al., 2022). Using the POSAC framework, areas requiring improvement were comprehensively identified. In planning, clear goals, performance indicators, and competency mapping must be established as the basis for staff assignment. In organizing, the roles of the Nurse Unit Manager (NUM), Clinical Care Manager (CCM), and delegation mechanisms need to be clarified to ensure that supervision and competency development are not dependent on a single authority. In staffing,

nurse placement must be aligned with clinical competency levels and certifications. In actuating, education and mentoring need to be structured to ensure consistent documentation. In controlling, documented evaluation and feedback tools are required to support compliance and continuous improvement (Marquis & Huston, 2021).

Patricia Benner's theoretical framework provides a pedagogical rationale for adopting daily competency records. Along the developmental spectrum from novice to expert, competency progression is shaped through guided experiences and systematic reflection. Without daily documentation, monitoring this internalization process becomes difficult, hindering the transition from advanced beginner to competent, proficient, and ultimately expert. Daily competency records offer a performance trail that promotes reflection, facilitates feedback, and guides situational learning aligned with the nurse's developmental stage (Song et al., 2024). Thus, integrating daily competency records represents a relevant managerial intervention to bridge the gap between expected competency standards and actual practice in the NICU. It also lays the groundwork for linkage with institution-level ongoing professional practice evaluation (OPPE) systems.

In response to these findings, a plan of action was developed to design and implement daily competency records. The planning process involved a needs assessment based on NICU data, a review of clinical authority frameworks, and discussions with nursing management. These inputs were used to design a record format aligned with Benner's from Novice to Expert framework (Benner, 1982), supported by recent studies on nursing competency evaluation by clinical educators (Song et al., 2024). The initial socialization stage involved one NUM, one CCM, and ten Associate Nurses (PAs), with the aim of aligning understanding regarding the objectives, benefits, and procedures for using the records. A structured pilot implementation was then conducted during daily practice to assess content relevance, usability, and workflow integration. Feedback from users informed iterative refinements to both content and format through a continuous evaluation approach designed to enhance nursing practice quality.

Implementation of the daily competency records followed core management functions. In planning, the format was developed based on clinical authority details and mapped to nursing competency levels (Talus et al., 2023). In organizing, the roles of NUM and CCM were strengthened, work schedules were adjusted to allow time for documentation, and clear delegation mechanisms were established. In actuating, morning and afternoon briefings were used as platforms for education and reinforcement of documentation compliance. In controlling, regular monitoring of record completion and quality was conducted through document reviews and structured feedback. The implementation adopted a participatory and reflective approach, involving stages of problem identification, design, pilot testing, evaluation of completion and usability, and shared reflection with users (Song et al., 2024).

The evaluation results indicated that nurses viewed the daily competency records positively, recognizing their dual function as tools for practice reflection and clinical activity reporting. The records helped nurses become more aware of their roles and contributions to daily nursing care (Alsalem et al., 2023). However, several challenges emerged, including perceptions of the format being impractical, manual search processes for competencies, and repetitive data entry requirements (Zaitoun, 2024). Based on this feedback, nurses suggested simplifying the format, creating a competency classification aligned with NICU diagnoses and interventions, and developing more efficient search features to enhance usability. Follow-up recommendations included refining competency indicators, creating a taxonomy tailored to patient conditions and NICU interventions, and developing a digital version to reduce administrative burden (Lin et al., 2023). These improvements are expected to increase nurses' compliance with documentation and maximize data use for competency development and evidence-based staffing decisions (Abualrub et al., 2025).

CONCLUSION

Daily competency records contribute positively to strengthening nursing practice accountability and clinical competency development among NICU nurses. The findings emphasize the importance of integrating documentation into the nursing management cycle to ensure targeted professional development, competency-based staff assignments, and accountable evaluations. Active nurse involvement in designing and refining the format was identified as a key factor in successful implementation.

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