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DEVELOPMENT OF A NEW NURSE ORIENTATION PROGRAM IN THE INTENSIVE CARE UNIT

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ABSTRACT
The transition of newly graduated nurses into high-intensity environments such as Intensive Care Units (ICU) presents significant challenges, often resulting in psychological stress and a gap between theoretical knowledge and clinical practice. To bridge this gap, a structured and systematic orientation approach is essential. One proven method is preceptorship, in which senior nurses act as clinical mentors to support new nurses in their professional adaptation. This approach facilitates the development of professional identity, enhancement of clinical competence, and gradual internalization of a patient safety culture. Objective: To evaluate and strengthen the roles of head nurses and primary nurses in mentoring newly graduated nurses to optimize ICU orientation and enhance patient safety. A pilot project method was applied, beginning with problem identification, problem analysis, priority setting, development of a Plan of Action, implementation, and evaluation. The implementation of a preceptorship-based orientation program, supported by clear guidelines and checklists, improved the effectiveness of clinical mentoring by Primary Nurses in the ICU. Through a systematic change approach, the program successfully strengthened the role of preceptors, accelerated the adaptation of new nurses, and fostered a sustainable clinical learning culture. The preceptorship-based orientation program effectively facilitated the transition of newly graduated nurses into the ICU setting by enhancing clinical competence, confidence, and professional adaptation. Strengthening the role of preceptors and implementing structured guidelines fostered a supportive learning environment, reduced the theory–practice gap, and promoted a sustainable culture of patient safety and continuous professional development.

Keywords: new nurse orientation program; preceptor; primary nurse

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INTRODUCTION

Nurses serve as the cornerstone of the global healthcare system, representing the majority of the healthcare workforce and playing a central role in ensuring the quality of nursing care and patient safety. According to the World Health Organization (2021), there is a significant global shortage of nurses, estimated to reach 5.9 million by 2030. Furthermore, the International Council of Nurses (2022) projects that the demand may rise to 13 million nurses to address the ongoing nursing workforce crisis worldwide, including in Indonesia. Hospitals face challenges in retaining and developing their nursing workforce, particularly newly graduated nurses, due to heavy workloads and suboptimal mentorship systems. Each year, hospitals recruit new nurses to fill vacancies caused by retirement, transfer, or resignation. However, in practice, many new nurses are not well prepared to face the complexity of clinical practice. This lack of readiness is evident in the gap between theoretical knowledge acquired during education and the practical demands of clinical settings, especially in critical units such as Intensive Care Units (ICUs).

The ICU work environment, characterized by its dynamic nature and high workload, requires both technical and emotional preparedness from nurses, including newcomers. Observations at Hospital X revealed that newly recruited nurses often lack sufficient competence to manage complex critical care situations, potentially compromising the quality of care and patient safety. This highlights the urgent need for a structured and evidence-based orientation program for new nurses. Without a comprehensive orientation system, the adaptation process becomes slower, the risk of errors increases, and work motivation tends to decline.

Findings from the observation emphasize the importance of implementing a preceptorship approach to facilitate professional adaptation. Primary Nurses (PNs) play a key role as direct clinical mentors, not only providing holistic nursing care but also serving as role models and primary guides in shaping clinical competence, professional behavior, and understanding of ICU work culture. Head nurses also function as strategic mentors responsible for structuring, supervising, and sustaining the mentoring process. However, in practice, both head nurses and primary nurses often do not perform these roles optimally due to limited training, the absence of standardized evaluation systems, and the lack of recognition for clinical mentors.

Therefore, strengthening the roles of head nurses and primary nurses in clinical mentoring is crucial to ensure a safe and structured transition for newly graduated nurses. Evaluating the implementation of these roles is essential as a foundation for developing strategies to improve the quality of nurse orientation programs and reinforce the patient safety culture in critical care units such as the ICU. This study aims to evaluate and strengthen the roles of head nurses and primary nurses in the clinical mentoring process to optimize the orientation program for newly graduated nurses in the ICU, enhance their clinical competence, and support a culture of patient safety.

METHOD

This study employed a pilot project method, beginning with problem identification, problem analysis, priority setting, development of a Plan of Action (POA), implementation, and evaluation. Data were collected through questionnaires, interviews, and observations. The questionnaire used in this study underwent content validity testing by five nursing experts in management and critical care, yielding a Content Validity Index (CVI) of 0.85, indicating that the items were valid and aligned with the measured constructs. Reliability testing using Cronbach's Alpha produced a value of 0.89, demonstrating excellent internal consistency. The study sample consisted of 151 respondents, including 16 newly recruited nurses, 97 primary nurses, and 38 orientee nurses, selected through purposive sampling based on their direct involvement in the clinical preceptorship program in the ICU of Hospital X. The analysis process utilized a Fishbone diagram, SWOT analysis (Strengths, Weaknesses, Opportunities, Threats), and External and Internal Factor Evaluations (EFE & IFE). Following the problem prioritization, the Plan of Action was developed using the POSAC (Planning, Organizing, Staffing, Actuating, Controlling) approach, followed by implementation, evaluation, and follow-up planning. The project was conducted in the Intensive Care Unit (ICU) of Hospital X, Depok.

RESULT

Following the data collection phase, problem analysis was conducted using the Fishbone diagram approach (Figure 1), which identified several key issues, including the absence of a standardized orientation program, limited facilities, high workload, and weak management support. The SWOT analysis (Table 1) further revealed that a combination of strong head nurse leadership , the use of e-logbooks , and effective workload management were the main success factors in implementing the new nurse orientation program, despite challenges such as limited human resources and the risk of excessive workload.

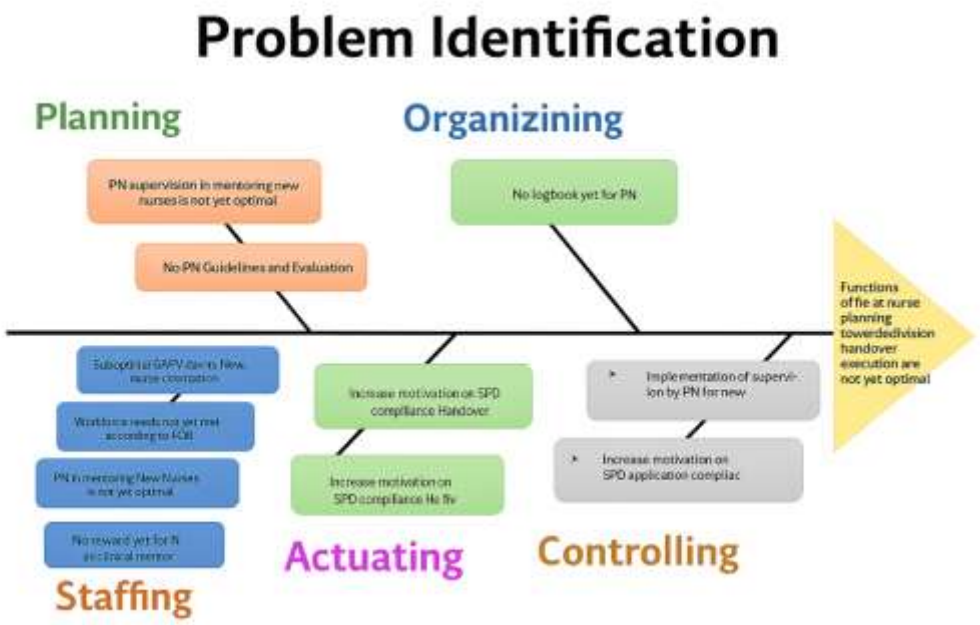

Figure 1. Fishbone Diagram

Table 1.
The SWOT analysis

SWOT **Analysis**	Opportunities	Threats
Strengths	SO Strategy: - Ward heads utilize their managerial roles to promote hospital regulation-based programs. - Ward heads' effective communication is used to advocate for training and rewards. - Ward heads' role as role models is maximized in LMS-based mentoring.	ST Strategy: - The ward head's leadership is used to reduce the perception of orientation as a burden. - The ward head maintains continuity of guidance despite preceptor turnover or absence.
Weaknesses	WO Strategy:	WT Strategy:
	- The competency gap in PN is addressed through training *and a Learning Management System.* - Human resource limitations are addressed through flexible orientation and *e-logbooks* . - A monitoring and evaluation system is developed using a digital platform.	- Create a PN database to reduce reliance on individuals. - Adjust workload based on Workload Analysis. - *Reward* methods maintain motivation despite high workloads.

Problem-solving was carried out through the development of a Plan of Action (POA) using the management function approach of the head nurse based on the POSAC method (Planning, Organizing, Staffing, Actuating, Controlling). The planning stage began with the formation of a regulatory team responsible for developing guidelines and Standard Operating Procedures (SOPs). This team involved the nursing department, nursing committee, head nurses, and students. The planning process takes place from June 19–21, 2025. In the organizing and staffing stages, the team developed guidelines and evaluation sheets for Primary Nurse , created an SOP for mentoring new nurses, designed activity and self-assessment checklists, and documented the pilot testing and instrument revisions. During this stage, the head nurse also prepares the socialization, simulation, and supervision agenda for the mentoring implementation. These activities were conducted from June 25–27, 2025.

During the actuating stage, the head nurse and students conducted socialization sessions on the activity and self-assessment forms for Primary Nurses, supervised the implementation of the SOP, and organized both online and offline simulations, also held from June 25–27, 2025. The final

controlling stage involved a final evaluation to determine whether the checklist and SOP were user-friendly and effective in supporting Primary Nurses in their role as mentors for new nurses. The evaluation results served as a basis for further improvement and refinement of the mentoring instruments. Once the organization was ready for change, implementation took place through simulation using the developed checklist. Training, clear communication, and leadership support were key to ensuring a smooth change process and acceptance of the results. The refreezing phase aims to strengthen and sustain the change, embedding it into the organizational culture. At this stage, the organization's structure, policies, and procedures were adjusted to align with the new system. Evaluation results showed that the Primary Nurse guidelines and activity checklist for mentoring new nurses could be effectively implemented in the ICU of Universitas Indonesia Hospital.

DISCUSSION

Based on the analysis of the Internal Factor Evaluation (IFE) and External Factor Evaluation (EFE) matrices, it was found that the implementation of the new nurse orientation program in the hospital still faces several significant internal challenges. The IFE score of 1.70 indicates that internal weaknesses outweigh strengths. Major weaknesses include the mismatch between staffing levels and workload analysis (ABK) , competency gaps due to staff rotation , and the absence of a reward or incentive system for nurses serving as preceptors, particularly Primary Nurses (PNs) . These weaknesses directly affect the consistency and quality of the new nurse orientation process in the unit. On the other hand, the EFE score of 1.85 (below the normal average of 2.5) shows that there are still external opportunities that can be leveraged to strengthen the orientation program. National regulations supporting clinical mentoring systems, the availability of preceptor training from educational institutions and professional organizations, and the advancement of digital technology — such as the use of e-logbooks — present valuable opportunities that can be optimized by the head nurse. However, external threats such as high workload and nurse turnover rates may hinder the program's effectiveness if not managed properly.

In this context, the role of the head nurse becomes highly strategic. The head nurse is not only responsible for supervising the orientation program but also for organizing a fair and effective mentoring system, including the assignment of competent Primary Nurses as preceptors . As front-line providers of holistic nursing care, Primary Nurses have great potential to become clinical mentors—provided they receive training, role strengthening, and formal recognition from management. Through a “Hold and Maintain” strategy , hospitals should focus on strengthening internal systems, particularly the implementation of the new nurse orientation program. One key step is to standardize the clinical mentoring process by appointing PNs as preceptors based on established competencies. Recent studies have shown that a structured and consistent preceptorship program significantly enhances new nurses' confidence, professional skills, and job satisfaction (Ke, Kuo, & Hung, 2017). To ensure that the mentoring process is effective and measurable, monitoring tools such as daily activity checklists are required to evaluate progress and provide objective feedback.

In addition, systemic support and training for preceptors play a crucial role. Varghese et al. (2023) found that preceptors who receive managerial support , clear mentoring schedules , and specialized training are better able to fulfill their mentoring functions, even under heavy workloads. External opportunities, such as training provided by professional institutions and the use of digital technology (e-logbooks) , can also enhance orientation quality. This aligns with findings reported in Nurse Leader (2024), which stated that technology-based orientation programs and competency-based mentoring systems effectively accelerate adaptation and improve new nurse retention. By strengthening internal systems through standardized mentoring and leveraging external opportunities such as training and technology, hospitals can improve the quality of new nurse

orientation while empowering Primary Nurses to serve as professional and competitive preceptors. Providing incentives , including non-financial rewards such as Continuing Education Credit Points (SKP) or recognition in annual performance evaluations , can motivate PNs to perform their preceptor roles effectively. Alongside technological advances, the use of e-logbooks or digital documentation can serve as essential tools for real-time monitoring and evaluation of orientation activities by the head nurse.

From a managerial perspective, the head nurse plays a pivotal role in organizing this program. Workload-based human resource planning (ABK) should be conducted to ensure that the orientation process does not strain service delivery. The head nurse must also select preceptors based on competency rather than seniority and ensure daily supervision and evaluation through logbook documentation. Equally important is fostering a learning and mentoring culture within the unit and acting as a liaison between staff and management to advocate for reward systems for clinical mentors. Recent studies emphasize that the success of clinical orientation programs is strongly influenced by the active involvement of trained and structurally supported preceptors . A systematic review by Ke, Kuo, & Hung (2017) confirmed that preceptorship significantly enhances competence, professional socialization, job satisfaction, and new nurse retention . This finding underscores that effective mentoring—especially by nurses with strong clinical and teaching abilities such as Primary Nurses—is crucial during the early adaptation phase of new nurses.

Furthermore, Hansen (2021) reported that new nurses feel more confident and better understand their roles when preceptors provide consistent guidance and act as role models within the unit. To ensure that mentoring remains structured and standardized, daily activity checklists serve as an important tool—not only facilitating documentation but also providing objective benchmarks for evaluating both preceptor performance and new nurse competency achievement. In terms of system sustainability, Varghese et al. (2023) emphasized that high workload often hinders preceptors from performing optimally. Therefore, support from the head nurse , through realistic mentoring schedules and formal recognition of preceptor performance, is essential. Similarly, a study published in BMC Medical Education (2022) highlighted that recognition and rewards for preceptors contribute positively to commitment and mentoring success in clinical settings. In this regard, the daily checklist also functions as evidence of the preceptor's tangible contribution to structured new nurse orientation.

CONCLUSION

The SWOT analysis revealed that the new nurse orientation program faces internal weaknesses, including a mismatch between staffing and unit needs, competency gaps due to rotation, and the absence of a reward system for preceptors. Conversely, there are external opportunities such as preceptor training, technological integration through e-logbooks, and potential management policy support. Based on the IE matrix, the appropriate strategy lies in the “Hold and Maintain” position, emphasizing the strengthening of internal processes and optimization of external opportunities.

Through the application of the managerial POSAC function, it was identified that the Head Nurse holds a central role in planning, organizing, implementing, and supervising the orientation process. The assignment of Primary Nurses as preceptors must be competency-based, and the program's implementation should include systematic evaluation using daily checklist forms. Evaluation using checklists demonstrated that standardized documentation supports monitoring objectives, enhances receptor accountability, and provides a clear basis for performance evaluation. Thus, strengthening the role of preceptors through training, managerial support, and adequate incentives, accompanied by the use of monitoring tools such as checklists, represents a strategic step to improve the quality of new nurse orientation programs and overall nursing care quality.

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