

Original Research

The Impact of Preceptorship Programs on Stress Levels Among Newly Graduated Nurses

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ABSTRACT

The transition period from academic education to clinical practice often exposes newly graduated nurses to high levels of stress due to increased responsibilities and workplace demands. This study aimed to examine the impact of preceptorship programs on stress levels among newly graduated nurses at Awal Bros Hospital Pekanbaru. This study employed a quantitative analytic design with a cross-sectional approach. All newly graduated nurses who had worked for three months or less at Awal Bros Hospital Pekanbaru during the study period were invited to participate. Using a total sampling technique, 37 eligible nurses were recruited and included in the study. Data were collected using a preceptorship program questionnaire and the Expanded Nursing Stress Scale (ENSS) and were analyzed using the Chi-square test. The results showed that 59.5% of the preceptorship programs were categorized as less appropriate, and 56.8% of nurses experienced stress. Statistical analysis revealed a significant relationship between preceptorship programs and stress levels ($p = 0.001$; OR = 18.000). These findings indicate that suboptimal preceptorship programs significantly increase the risk of stress among newly graduated nurses. Strengthening structured preceptorship programs is recommended to support adaptation and reduce stress levels.

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INTRODUCTION

The transition from academic education to clinical practice is widely recognized as a critical period for newly graduated nurses, as they are required to adapt to complex clinical environments, increased professional responsibilities, and high workloads that often lead to psychological stress, which can negatively affect their productivity, mental health, and the quality of patient care (Zhang et al., 2025).

During this transition, newly graduated nurses are expected to integrate theoretical knowledge into clinical decision-making while simultaneously adapting to organizational culture, interdisciplinary collaboration, and greater accountability for patient outcomes (Jafarimanesh et al., 2026).

The rapid shift from a supervised academic environment to independent professional practice frequently creates

uncertainty, reduces self-confidence, and increases anxiety, particularly when nurses are required to manage complex clinical situations (Ibrahim et al., 2025). Without adequate organizational support, these challenges may hinder professional adaptation, delay competency development, and compromise both individual performance and the delivery of safe, high-quality patient care (Lima & Alzyood, 2024). Consequently, occupational stress among nurses has become a major global concern. International studies have consistently reported that a substantial proportion of newly graduated nurses experience occupational stress during the transition from nursing education to clinical practice (Alharbi et al., 2023). This transition period is often characterized by reality shock, role ambiguity, and increasing professional responsibilities, all of which may negatively affect nurses' well-being, job performance, and long-term retention in the nursing workforce (Yıldız et al., 2024).

In Indonesia, occupational stress among nurses remains a significant occupational health concern (Putra et al., 2021). A recent study involving 98 newly employed nurses in Indonesia reported that 68.4% experienced high levels of work-related stress, underscoring the vulnerability of newly graduated nurses during the transition to professional practice (Pakaya & Dulahu, 2024). Newly graduated nurses frequently experience reality shock, a condition arising from the discrepancy between expectations during education and actual clinical demands (Zhang et al., 2025). This transition period is often associated with anxiety, uncertainty, and difficulties in adapting to professional roles, particularly within the first months of employment (Ainun et al., 2025; Alharbi et al., 2023). If not properly managed, stress can lead to burnout, decreased performance, and increased turnover intention among nurses (Lim et al., 2024).

Preceptorship is a structured guidance process in which experienced nurses provide supervision, support, and knowledge transfer to newly graduated nurses to facilitate their transition into professional roles (Setiadi et al., 2025). Previous evidence indicates that effective preceptorship plays a pivotal role in facilitating the transition of newly qualified nurses into clinical practice (Hong & Yoon, 2021). Structured preceptorship not only improves clinical competence and professional confidence but also reduces anxiety and work-related stress during the early transition period. Furthermore, preceptorship fosters a sense of belonging, supports adaptation to complex clinical environments, and contributes to better retention of newly graduated nurses (Alshareef & Flemban, 2025). Consequently, preceptorship is increasingly regarded as an essential component of best nursing practice during the transition from student to registered nurse (Lima &

Alzyood, 2024; Setiadi et al., 2025). However, the effectiveness of such programs depends on their implementation. Inadequate supervision, lack of support, and inconsistent guidance may limit the benefits of preceptorship and contribute to increased stress levels among nurses (Wea et al., 2025). Therefore, further investigation in different healthcare settings remains important to generate context-specific evidence.

At Awal Bros Hospital Pekanbaru, the preceptorship program has been implemented for newly graduated nurses during the first three months of employment. Despite this, preliminary observations indicated that several nurses continued to experience stress symptoms during the transition period. Furthermore, based on records and information provided by hospital management, no previous study has specifically examined the relationship between preceptorship programs and stress levels among newly graduated nurses in this hospital. This study was conducted to provide local evidence for evaluating and improving the implementation of the preceptorship program at Awal Bros Hospital Pekanbaru.

This study aims to examine the relationship between preceptorship program implementation and stress levels among newly graduated nurses at Awal Bros Hospital Pekanbaru. Specifically, this study seeks to provide empirical evidence regarding the role of preceptorship in supporting the transition of newly graduated nurses into professional clinical practice. The findings are expected to contribute to the development of evidence-based strategies for strengthening preceptorship implementation, reducing occupational stress, and enhancing professional adaptation during the early stages of nursing practice. In addition, the results may serve as a reference for hospital managers and nursing administrators in designing structured preceptorship programs that promote psychological well-being, professional competence, and quality of patient care.

METHOD

This study employed a quantitative analytic design using a cross-sectional approach. The study was conducted at Awal Bros Hospital Pekanbaru. Previous studies have identified this period as critical for evaluating the effectiveness of support mechanisms, including preceptorship programs (Duchscher, 2009). Using a total sampling technique, all newly graduated nurses with a working period of three months or less at the hospital were invited to participate. Coordination with hospital management was conducted to identify eligible participants. A total of 37 nurses were identified, agreed to participate, and were included in the study.

Data were collected using two instruments: a preceptorship program questionnaire and the Expanded Nursing Stress Scale (ENSS). The ENSS is a validated instrument developed to assess occupational stress among nurses and is designed according to the characteristics of the nursing profession. The ENSS used in this study consisted of 24 items rated on a 4-point Likert scale. The researchers adopted the ENSS questionnaire for measuring respondents' stress levels. Data processing included editing, coding, data entry, and data cleaning to ensure data accuracy and completeness.

Univariate analysis was conducted to describe the demographic characteristics of the respondents and the distribution of the study variables using frequencies and percentages. Bivariate analysis was performed using the Chi-square test to examine the association between preceptorship program implementation and stress levels among newly graduated nurses. The strength of the association was expressed as an odds ratio (OR) with a 95% confidence interval (95% CI), and statistical significance was determined at $p < 0.05$. Ethical approval for this study was obtained from the Health Research Ethics Committee of Awal Bros University (Ethical Clearance No. 0002/UAB.20/SR/KEPK/01.26).

The study was conducted in accordance with the principles of the Declaration of Helsinki. Before data collection, all participants received an explanation of the study objectives, procedures, potential benefits, and their rights as research participants. Written informed consent was obtained from all respondents prior to participation. Participation was entirely voluntary, and respondents had the right to withdraw from the study at any time without any consequences. The confidentiality and anonymity of participants were strictly maintained throughout the research process, and all collected data were used exclusively for research purposes.

RESULT

Univariate analysis was performed to describe the demographic characteristics of the respondents. As shown in Table 1, the majority of respondents were 24 years of age (51.4%), while the remaining respondents were equally distributed between 25 and 26 years of age (24.3% each). Most respondents were female (78.4%), whereas males accounted for 21.6%.

Table 1. Distribution of Respondent Characteristics (n=37)

Characteristics	n	%
Age		
24 years	19	51.4
25 years	9	24.3
26 years	9	24.3
Gender		
Male	8	21.6
Female	29	78.4

Table 2 presents the distribution of the study variables. Most newly graduated nurses experienced inappropriate implementation of the preceptorship program (59.5%), whereas 40.5% experienced appropriate implementation. In addition, more than half of the respondents experienced stress (56.8%), while 43.2% reported no stress.

Table 2. Distribution of Study Variables (n=37)

Preceptorship Program	n	%
Inappropriate implementation	22	59.5
Appropriate implementation	15	40.5
Stress Level		
Stress	21	56.8
No Stress	16	43.2

Bivariate analysis was conducted to examine the relationship between preceptorship program implementation and stress levels among newly graduated nurses. As presented in Table 3, stress was reported by 81.8% of nurses who experienced inappropriate preceptorship program implementation, compared with 20.0% of those who experienced appropriate implementation. Conversely, 80.0% of nurses who experienced appropriate preceptorship program implementation reported no stress, compared with 18.2% of those who experienced inappropriate implementation. The Chi-square test showed a statistically significant relationship between preceptorship program implementation and stress levels ($p = 0.001$). Furthermore, the odds ratio (OR = 18.00) indicated that nurses who experienced inappropriate preceptorship program implementation were 18 times more likely to experience stress than those who experienced appropriate implementation (Table 3).

Table 3. The Relationship Between Preceptorship Program and Stress Levels (n=37)

Preceptorship Program	Stress	No Stress	Total	p-value	OR (95% CI)
Inappropriate implementation	18 (81.8%)	4 (18.2%)	22 (100%)	0.001	18.000
Appropriate implementation	3 (20.0%)	12 (80.0%)	15 (100%)		

DISCUSSION

This study found a significant relationship between preceptorship program implementation and stress levels among newly graduated nurses. Nurses who experienced inappropriate implementation of the preceptorship program were more likely to experience stress than those who experienced appropriate implementation. These findings support the hypothesis that preceptorship programs play an important role in reducing stress during the transition period. This finding reflects the challenges faced by newly graduated nurses during the transition period, including adaptation to clinical environments, workload demands, and professional responsibilities.

One possible explanation for these findings is that effective preceptorship provides newly graduated nurses with continuous clinical guidance, constructive feedback, and emotional support during their transition into professional practice. Such support enables novice nurses to develop confidence in clinical decision-making, strengthen professional competence, and adapt more effectively to unfamiliar clinical environments (Wang et al., 2025). An integrative review by Lima and Alzyood (2024) concluded that supportive preceptorship facilitates the development of trusting relationships between preceptors and newly qualified nurses, thereby creating a psychologically safe learning environment where novice nurses feel comfortable seeking guidance and discussing clinical challenges. These supportive interactions are likely to reduce uncertainty and anxiety, ultimately lowering occupational stress during the early stages of professional practice.

This finding suggests that the current preceptorship system may not have been optimally implemented, which could be influenced by factors such as limited guidance time and high workloads in clinical settings. The findings of this study are consistent with previous studies reporting that effective preceptorship programs can reduce stress levels and improve adaptation among newly graduated nurses (Lima & Alzyood, 2024). The same review also emphasized that consistent preceptor availability is essential for a successful transition because newly graduated nurses who receive continuous supervision experience greater stability in learning and professional development (Hong & Yoon, 2021). In contrast, inconsistent supervision or limited access to preceptors may leave novice nurses feeling unsupported, overwhelmed, and reluctant to seek assistance when encountering clinical difficulties. Such conditions may increase psychological pressure and contribute to higher levels of occupational stress during the transition period (Zondi & Mkhize, 2025).

Preceptorship provides structured guidance, emotional support, and clinical supervision that are essential for helping newly graduated nurses adapt to their professional roles and responsibilities, thereby enhancing their confidence and competence while reducing psychological pressure (Setiadi et al.,

2025). However, this study also revealed that most respondents experienced inappropriate implementation of the preceptorship program. This finding highlights a gap between the expected and actual implementation of preceptorship in clinical settings. Unlike the ideal conditions described in previous studies, the preceptorship process in this setting may be affected by factors such as limited supervision time, high workload, and insufficient support from senior nurses (Wea et al., 2025). These conditions may reduce opportunities for newly graduated nurses to receive consistent guidance, timely feedback, and emotional support during their transition into professional practice.

The high proportion of stress among newly graduated nurses in this study reflects the challenges associated with the transition period, often described as reality shock. During this phase, nurses experience discrepancies between academic preparation and actual clinical demands, leading to emotional and psychological stress (Ainun et al., 2025). These findings suggest that the effectiveness of preceptorship depends not only on the existence of a formal program but also on the quality and consistency of its implementation (Wang et al., 2025). Continuous supervision, supportive communication, and a trusting relationship between preceptors and newly graduated nurses are essential to facilitate professional adaptation and reduce occupational stress (Hong & Yoon, 2021).

A notable finding of this study is the high odds ratio, indicating that inappropriate implementation of preceptorship programs significantly increases the risk of stress among newly graduated nurses. This finding emphasizes the critical role of structured and effective preceptorship in supporting newly graduated nurses during their transition to professional practice. Previous studies have reported that effective preceptorship programs contribute to improved adaptation, increased confidence, enhanced clinical competence, and reduced stress among early-career nurses (Lima & Alzyood, 2024; Setiadi et al., 2025). Therefore, improving the quality of preceptorship implementation may help reduce stress levels and facilitate professional adjustment among newly graduated nurses.

This study has several limitations. First, the relatively small sample size and the inclusion of participants from a single hospital may limit the generalizability of the findings to other healthcare settings with different organizational characteristics and preceptorship practices. Second, cross-sectional design only allows the identification of associations between preceptorship implementation and stress levels and does not permit causal inferences. Third, this study focused primarily on preceptorship implementation and did not examine other factors that may contribute to occupational stress among newly graduated nurses, such as workload, organizational support, leadership, coping strategies, resilience, and the work environment.

In addition, data were collected using self-reported questionnaires, which may be subject to response bias. Future studies are recommended to include larger and more diverse samples from multiple healthcare institutions to improve the generalizability of the

findings. Longitudinal or prospective study designs are also recommended to better understand the causal relationship between preceptorship implementation and stress over time. Furthermore, future research should examine additional organizational and individual factors influencing occupational stress and evaluate the effectiveness of different preceptorship models in improving psychological well-being, professional competence, and retention among newly graduated nurses.

CONCLUSION

This study found a significant relationship between preceptorship program implementation and stress levels among newly graduated nurses at Awal Bros Hospital Pekanbaru. Newly graduated nurses who experienced inappropriate implementation of the preceptorship program were more likely to experience stress than those who experienced appropriate preceptorship support. These findings suggest that effective preceptorship is not merely an orientation process but also an essential organizational strategy that facilitates the transition to professional practice, enhances adaptation to the clinical environment, and supports the psychological well-being of newly graduated nurses during the early stages of their careers. Well-structured preceptorship programs that provide consistent clinical guidance, constructive feedback, and emotional support may contribute to reducing occupational stress while strengthening professional confidence and competence. Therefore, healthcare institutions should prioritize the development of standardized preceptorship programs, including adequate preparation of preceptors, protected supervision time, and continuous program evaluation to optimize the transition of newly graduated nurses into professional practice. Future research should include larger and more diverse samples, employ longitudinal or multicenter study designs, and examine additional factors influencing occupational stress, such as workload, organizational support, leadership, and the work environment.

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