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Bridging the Gap: A Systematic Review of Transition Challenges and CPR Readiness Among Newly Graduated Nurses

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Abstract

Background: As new graduate nurses, they are known to have difficulties in the transition period between theory and practice and specifically when it comes to cardiopulmonary resuscitation (CPR) where the ability to save the patient depends on the competency level. High fidelity simulation (HFS) and altered Objective Structured Clinical Examination (OSCE) has become novel methods to improve clinical training and testing.

Purpose: The paper sought to assess the effects of an adapted OSCE and high-fidelity simulation on CPR skills in new nurses.

Method: The systematic review approach was used, with an emphasis on articles published within 2020-2024. Several databases such as PubMed, CINAHL, Scopus, Web of science, Cochrane Library and Google Scholar were searched with predetermined keywords. A total of 70 studies were found, screened, and 18 studies were included according to inclusion criteria. The thematic analysis was employed to synthesize data.

Results: 6 key themes were revealed: transition issues, readiness to practice, simulation training, development of CPR competencies, organized transition programs, and competency testing. The results have suggested that HFS is beneficial in terms of clinical skills, confidence, and decision-making, and modified OSCE is more effective in terms of overall evaluation of technical and non-technical skills.

Conclusion: Modified OSCE integration with HFS can greatly enhance CPR competency and clinical readiness in newly graduated nurses, which is crucial to safer and more effective nursing care.

Keywords: High-fidelity simulation, OSCE, CPR competency, newly graduated nurses, clinical readiness

Introduction

Cardiopulmonary resuscitation (CPR) is one of the most important life-saving procedures directly related to the survival rates of cardiac arrest (CA) where the quality and timeliness of chest compressions and ventilation closely correlate with survival. CPR can be conceptualized in terms of its effectiveness (Roberts , 2025). Where, $S \propto IQ_{CPR}$, in which S is the probability of survival (S) and the quality of the CPR given. Regardless of healthcare system advancement, weaknesses in CPR performance are a worldwide issue, especially among newly graduated nurses (NGNs), as they are their initial step of managing real-life situations (Thrasher et al., 2025). This is a gap especially in high-stress clinical settings where quick decisions must be made, precision is needed in the technical aspect and teamwork is required (Marcus et al., 2025).

The shift between theoretical knowledge and practice can be highly challenging to NGNs, and is usually accompanied by stress, anxiety, and decreased self-confidence (Moussa et al., 2025; Wang et al., 2026). Past multiple studies has shown that NGNs often face a theory to practice gap, in which the knowledge gained in the training process is not applicable in practice (Naguszewski et al., 2024; Lin et al., 2025). This difference can be mathematically defined as $\Delta C = C_{theoretical} - C_{clinical}$. Where, ΔC being the theoretical knowledge, clinical performance, and competency gap respectively. These errors are especially important in emergency situations, such as CPR, where action time (or inaction time) and misuse can greatly decrease the survival rates of patients (Nti–Darkwah et al., 2025).

High-Fidelity Simulation (HFS) has become a new educational approach that is aimed at filling this competency gap by simulating real clinical situations. HFS involves the use of state-of-the-art mannequins and immersive settings to mimic physiological reactions, thus boosting experiential learning and clinical decision-making (Gonzalez, 2022). Empirical studies indicate that HFS enhances knowledge retention, critical thinking, and psychomotor skills as it enables the learners to practice repeatedly and without any risks (Robbins & Figary, 2024). Moreover, HFS promotes performance through learning cycles, which are experiential, in which performance (P) is enhanced as a result of practice and feedback, $P = f(E + D)$, with E being experience and D being debriefing (Rutherford-Hemming et al., 2022; Tsai & Lai, 2025).

HFS has been proven to be effective in CPR training and has been largely supported in the literature, showing significant improvements in both technical and non-technical skills. As an example, randomized controlled trials indicate that HFS leads to an improvement of the depth of chest compression, the accuracy of the rate, and the overall quality of CPR (Muñoz et al., 2025). Also, HFS has been linked to greater self-efficacy and psychological readiness,

among nursing students and professionals (Ross et al., 2025). Contextual factors that include teacher experience, curriculum and simulation fidelity influence these improvements (Najafi & Nasiri, 2024; Gustafsson et al., 2026).

In spite of these advantages the assessment of CPR competency is a problem, especially when using traditional methods of assessment like the Objective Structured Clinical Examination (OSCE). The use of OSC is quite common in the evaluation of the clinical performance in the form of structured stations and standardized checklists. Nevertheless, the standard OSCE checklists are more likely to focus on procedural accomplishment and ignore such crucial issues as clinical judgment, flexibility, and collaboration (Calamante, 2025). This can be expressed as $C_{total} = C_{technical} + C_{non-technica}$. In which C is frequently only measured by traditional OSCE. $C_{technical}$. Causing partial competency evaluation.

Additionally, evaluator variability, and student anxiety are some of the factors that affect the reliability and validity of OSCE assessments. Dobrzyn (2024), has found that OSCE settings can cause considerable levels of psychological distress, potentially having a negative effect on performance (Lee et al., 2026). Moreover, differences in scoring between evaluators cast doubt on the objectivity of the evaluation process (Alshamrani et al., 2025). These constraints indicate that further assessment systems combining technical and behavioral skills are necessary (Salifu et al., 2022).

To overcome these issues, there are proposed modified OSCE checklists as an improved method of assessment that are more consistent with learning outcomes of simulation. Adjusted OSCE has multidimensional criteria, such as decision-making, communication, and teamwork, which offer a more comprehensive assessment of clinical competence (Ndung'u, 2023; Azami & Ebrahimy, 2025). Combined with HFS, this method forms a synergistic model, in which the learning and assessment are in harmony with each other, which results in better competency outcomes. This integration may be thought of as $C_{enhanced} = HFS + OSCE_{modified}$, indicating the overall impact on the formation of competencies (Blomquist, 2022; Mackay et al., 2025).

The implementation of HFS and sophisticated assessment techniques is not as old as in the case of Saudi Arabia, as there is still the work to modernize nursing education. Research has shown that although learning based on simulation is gaining more and more recognition, there are still gaps in terms of standardization, implementation, and evaluation (High et al., 2022; Kaya et al., 2023). Moreover, the effectiveness of these educational strategies is affected by cultural, institutional, and resource-related aspects, and the context-specific research is needed to maximize the results (Alselaml et al., 2023; Haqawi et al., 2024; Amnah et al., 2024; Alqadi et al., 2025).

Thus, the necessity to explore innovative educational and assessment methods that will be effective to increase CPR competency in NGNs is critical. The issue that the current research deals with is the decrease in the quality of CPR competency evaluation as a result of the constraints of traditional OSCE techniques and lack of high-fidelity simulation incorporation. This research is important because it will enhance clinical competence, patient safety and survival rates by using evidence-based education plans. This research project will be conducted to assess the effect of an adapted Objective Structured Clinical Examination with high-fidelity simulation on cardiopulmonary resuscitation proficiency in newly graduated Taif nurses.

Method

Research Question	In newly graduated nurses, in comparison with traditional CPR training and assessment programs, modified Objective Structured Clinical Examination with high-fidelity simulation versus traditional CPR training and assessment programs, how cardiopulmonary resuscitation competency changes over the last 5 years, 2020 – 2026?	
Population	P	Nurses and nursing final-year students who participated in CPR training.
Intervention	I	Adapted Objective Structured Clinical Examination combined with a high-fidelity simulation.
Comparison	C	Traditional CPR education, traditional OSCE, low/medium-fidelity simulation, or standard clinical education.
Outcome	O	CPPR competency, CPR knowledge, technical skills, quality of compression, confidence, self-efficacy, clinical decision-making, and non-technical skills.
Timeframe	T	In the last five years 2022 - 2026.

Selection Criteria

Inclusion Criteria

- Research papers that were released in 2020 and beyond.
- Research centered on CPR education, CPR competence or life-support education.
- Research with recently graduated nurses, nursing students in their final years or novice nurses.
- High-fidelity simulation studies, simulation-based learning studies, OSCE studies, or modified OSCE assessment.
- Quantitative, qualitative, mixed-method, quasi-experimental, randomized controlled trial and observational studies that have undergone peer review.
- Articles written in English.
- Research with quantifiable educational or clinical results in terms of CPR competency.

Exclusion Criteria

- Articles that were published prior to 2020 or after 2024.

- Research was limited to non-nursing populations (physicians, paramedics) or lacked nursing-specific information.
- Research that employed low-fidelity or medium-fidelity simulation without contrasting to a high-fidelity simulation.
- Abstracts, conference summaries, letters to the editor, and editorial, opinion papers and abstracts without text.
- Research that is not related to CPR, OSCE, simulation, or nursing competency.
- Non-English studies.
- Articles that lacked methodological information or the outcome reporting.

Database Selection

To facilitate effective search of the relevant studies, the literature search was performed on major health, nursing, medical and education databases to guarantee full retrieval of relevant studies. The chosen databases were PubMed, CINAHL, Scopus, Web of Science and Cochrane Library due to their indexing high quality peer-reviewed studies in nursing education, simulation-based learning, cardiopulmonary resuscitation, and competency assessment. Google Scholar was also utilized as the additional source to locate some more articles and grey literature.

Data Extracted

A structured extraction form was used to extract the data. Information retrieved consisted of author name, year of publication, country, study design, study setting, sample size, characteristics of the participants, type of intervention used, comparison group, outcome measures, major findings and study limitations. Special focus was made on the results of the CPR competency, technical performance, quality of chest compression, confidence, self-efficacy, decision-making, teamwork, and OSCE-based assessment.

Search Syntax

Primary Syntax	(high-fidelity simulation" OR HFS OR simulation-based learning) AND (cardiopulmonary resuscitation" OR CPR OR basic life support OR advanced cardiac life support) AND (objective structured clinical examination" OR OSCE OR modified OSCE OR clinical competency assessment) AND (nursing students" OR novice nurses OR nursing interns).
Secondary Syntax	(CPR competency or high-fidelity manikin or high-fidelity simulation) and (nurses or nursing students) and (assessment or OSCE or checklist).

Literature Search

The search of the literature was conducted in a systematic way with the help of pre-set keywords and Boolean operators. Only published studies dating back to 2020-2024 were included in the search. The initial screening was done on titles and abstracts, to eliminate irrelevant studies, duplicates and non-nursing publications. Articles were then evaluated by the inclusion and exclusion criteria using full-text articles. The last studies were chosen based on their pertinence to high-fidelity simulation, CPR competency, modified OSCE, and nursing education.

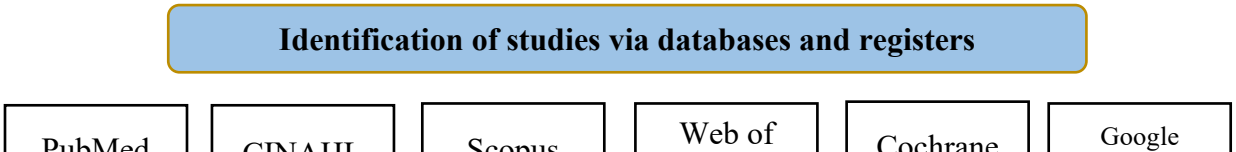
Table 2: Databases Selection

No	Database	Syntax	Year	No. of Researches.
1	PubMed	Primary and secondary	2022 – 2026	134
2	CINAHL			89
3	Scopus			179
4	Web of Science			261
5	Cochrane Library			97
6	Google Scholar			12,100

Table 2 reveals that the literature search was carried out in six large databases with primary and secondary search syntax in the time frame 2022-2026. Google Scholar had the largest number of results (12,100), whereas Cochrane library had the lowest amongst the key academic databases (97), suggesting extensive initial coverage prior to screening and eligibility test.

Selection of Studies

The preliminary search in the database had found 70 studies. The number of studies that passed through title and abstract screening was 50 after eliminating 20 duplicate records. In the process of screening, 22 studies were ruled out as they were not directly connected with high-fidelity simulation, CPR competency, OSCE, or nursing populations. The rest 28 full-text articles were reviewed on the basis of eligibility with ten articles being excluded based on lack of enough methodological information, inappropriate populations or lack of any outcome of CPR. Lastly, 18 studies were included in the review since they met the inclusion criteria.



Quality Assessment of Studies

The quality of the studies included was evaluated on the basis of structured appraisal methodology that concentrated on study selection, coverage of the literature, methodology and transparency of the findings. The majority of the studies showed a high methodological rigor with the description of study design, relevant sampling strategy, and well-described findings which led to the high prevalence of Good quality rating. Nevertheless, some were classified as Fair because of certain limitations like lack of full coverage of literature or lack of clarity in the reporting of the findings. In general, the evaluation shows that most of the studies in the sample offer sound and valid information to aid the synthesis of the results concerning the challenges faced by newly graduated nurses with transition, high-fidelity simulation, and CPR competency, thus enhancing the reliability of the review.

Table 3: Assessment of the Literature Quality Matrix

#	Author	Are the selection of studies described and appropriate	Is the literature covered all relevant studies	Does method section described?	Was findings clearly described?	Quality rating
1	Yang & Wu (2025)	Yes	Yes	Yes	Yes	Good

#	Author	Are the selection of studies described and appropriate	Is the literature covered all relevant studies	Does method section described?	Was findings clearly described?	Quality rating
2	Masso et al. (2022)	Yes	No	Yes	Yes	Fair
3	Sterner et al. (2023)	Yes	Yes	Yes	Yes	Good
4	Yi & Wang (2025)	Yes	Yes	Yes	Yes	Good
5	Hanna (2023)	Yes	Yes	Yes	Yes	Good
6	Clancy-Burgess (2024)	Yes	Yes	Yes	Yes	Good
7	Sterner et al. (2023)	Yes	Yes	Yes	No	Fair
8	Alharbi et al. (2023)	No	Yes	Yes	Yes	Good
9	Yoon & Bae (2026)	Yes	Yes	Yes	Yes	Good
10	Kjellsdotter et al. (2026)	Yes	Yes	Yes	Yes	Good
11	Makanjee et al. (2023)	Yes	Yes	Yes	Yes	Good
12	Sharpnack et al. (2023)	Yes	Yes	Yes	No	Fair
13	Ahn et al. (2024)	No	Yes	Yes	Yes	Good
14	Wanas & Hamed (2024)	Yes	Yes	Yes	Yes	Good
15	Mashao et al. (2025)	Yes	Yes	Yes	Yes	Good

Table 3 shows the quality evaluation of 15 chosen studies in terms of study selection, literature coverage, methodology, and clarity of findings, as well as a rating of overall quality. The majority of the studies were classified as good, and a few studies were classified as fair because of the limitations (i.e., partial literature coverage, lack of clarity in study selection, or insufficient description of findings, etc.).

Data Synthesis

An integrative thematic analysis approach was used to perform the data synthesis and allowed combining quantitative findings with the qualitative insights of the studies included to find common patterns and relationships. It was through this process that some of the main themes associated with the challenges of transition, the use of high-fidelity simulation, its influence on the performance of CPR, and the feasibility of the modified OSCE in competency measurement were identified.

Table 4: Research Matrix

Author, Year	Aim	Research Design	Type of Studies Included	Data Collection Tool	Result	Conclusion	Study Supports Present Study
Yang & Wu (2025)	To explore challenges faced by newly graduated nurses during ICU transition.	Qualitative study	Primary qualitative study	Interviews	NGNs experienced stress, lack of confidence, and difficulty adapting to ICU practice.	Structured support is needed during transition.	Supports need for competency-based training.
Masso et al. (2022)	To examine practice readiness of new graduate nurses.	Scoping review	Reviews	Literature review	Practice readiness is influenced by education, confidence, clinical exposure, and support.	Transition preparation should be strengthened.	Supports the theory-practice gap.

Author, Year	Aim	Research Design	Type of Studies Included	Data Collection Tool	Result	Conclusion	Study Supports Present Study
Sterner et al. (2023)	To assess preparedness and challenges of NGNs entering hospital transition programs.	Cross-sectional survey	Primary quantitative study	Questionnaire	NGNs felt prepared to learn but unprepared for clinical work.	Transition programs should improve practical readiness.	Supports need for simulation training.
Yi & Wang (2025)	To examine transition shock between work readiness and workplace adaptability.	Cross-sectional study	Primary quantitative study	Survey scale	Transition shock affected adaptability among NGNs.	Reducing transition shock improves clinical adjustment.	Supports intervention for NGNs.
Hanna (2023)	To improve nursing students' cardiac arrest response using HFS.	Doctoral project / intervention study	Primary applied study	Simulation assessment tool	HFS improved resuscitation response and readiness.	HFS prepares students for professional emergency practice.	Directly supports HFS for CPR competency.
Clancy-Burgess (2024)	To implement emergency assessment and stabilization training for novice nurses.	Quality improvement project	Primary applied study	Training evaluation tool	Training improved recognition and response to emergencies.	Emergency training is important for novice nurses.	Supports CPR and emergency competency development.
Sterner et al. (2023)	To explore NGNs' views on simulation-based education for acute care preparedness.	Qualitative interview study	Primary qualitative study	Interviews	Simulation increased preparedness for acute care situations.	Simulation helps bridge education and practice.	Supports HFS use in transition preparation.
Alharbi et al. (2023)	To explore NGNs' first-year practice experiences.	Qualitative study	Primary qualitative study	Interviews	NGNs experienced anxiety, workload stress, and adaptation challenges.	More institutional support is needed.	Supports focus on newly graduated nurses.
Yoon & Bae (2026)	To explore transition of novice pediatric nurses using Meleis's Transition Theory.	Qualitative study	Primary qualitative study	Interviews	Novice nurses faced adaptation difficulties requiring continuing education.	Simulation-based continuing education may support transition.	Supports theoretical basis for transition-focused training.

Author, Year	Aim	Research Design	Type of Studies Included	Data Collection Tool	Result	Conclusion	Study Supports Present Study
Kjellsdotter et al. (2026)	To describe NGNs' experiences in introduction programs.	Phenomenological hermeneutical study	Primary qualitative study	Interviews	Belonging and support improved transition experience.	Introduction programs strengthen professional adaptation.	Supports structured support for NGNs.
Makanjee et al. (2023)	To explore transition to independent practice among recently graduated radiographers.	Qualitative study	Primary qualitative study	Interviews	Graduates needed clearer roles and support during transition.	Transition difficulties occur across health professions.	Provides supportive evidence for transition challenges.
Sharpnack et al. (2023)	To describe innovative CPR instruction using the RQI program.	Educational pilot study	Primary educational study	Program evaluation	CPR instruction improved resuscitation learning experience.	Innovative CPR education can enhance readiness.	Supports improved CPR training methods.
Ahn et al. (2024)	To explore new nurses' field adaptation over time.	Text network analysis	Primary observational study	Text data analysis	Adaptation involved stress, learning, relationships, and professional growth.	Adaptation is a gradual and complex process.	Supports need for transition support.
Wanas & Hamed (2024)	To examine career adaptability and professional competence among NGNs in ICU.	Comparative study	Primary quantitative study	Questionnaire	Career adaptability was related to professional competence and development.	Improving adaptability may enhance competence.	Supports competency development among ICU NGNs.
Mashao et al. (2025)	To identify components of a transition program for novice emergency nurses.	Descriptive qualitative study	Primary qualitative study	Interviews	Transition programs should include clinical support, mentorship, and emergency preparedness.	Structured transition programs are essential in emergency departments.	Supports CPR and emergency-focused NGN training.

Table 4 heads up the major studies associated with the transition issues of newly graduated nurses, simulation-based training, CPR training, emergency preparedness and development of professional competency. In general, the literature reviewed supports the current study by indicating that the newly graduated nurses need structured training, high-fidelity simulation, and competency-based assessment to enhance clinical readiness and CPR performance.

Results

Adjustment to work in novice nurses

Sub-themes: Stress, anxiety, transition shock, low confidence and work load pressure.

- **Stress and anxiety:** The consequences of being a newly graduated nurse are stress and anxiety since they are expected to be responsible of actual patients at the same time to manage clinical and communicate with other healthcare professionals and respond to an emergency situation. Emotional pressure in relation to anticipating clinical errors is more in the initial months of practice.
- **Transition shock:** Transition shock happens when NGNs get to know that the controlled environment of academics is far different as compared to the unpredictable hospital environment. Such shock is indicative of how hard it is to put theoretical knowledge in practice with real patients with complex and changing conditions.
- **Low confidence:** Low confidence is typical as NGNs might lack experience in making independent decisions, responding to an emergency, and complex situations with patients.
- **Pressure of workload:** NGNs experience high workload, time pressures, shift work, and work pressure due to high patient demands especially in the intensive care units and emergency departments.

Trends: Novice nurses often experience clinical incompetence as a new nurse in their initial years of practice.

- NGNs tend to have difficulties in implementing theoretical knowledge in safe clinical practice.
- The first year of practice is most likely to be a time of emotional and psychological stress.
- Lack of clinical preparedness often occurs in cases where the nurses lack systematic support, mentorship and practical training.

This theme simplifies that moving out of the student nurse into professional nurse is a tough and a complicated process. The new graduates in the field of nursing have to showcase clinical competency, communication, collaboration, and decision making in actual healthcare environments and many are not ready to take up these tasks. The results indicate that stressful events, anxiety, shock of transition, low confidence and workload pressures may have detrimental impact on clinical performance and patient safety. Hence, transition support should be organized, learning should be based on simulation, mentorship, and training need to be competency-based to enable NGNs to enter clinical practice successfully.

Practice Readiness and adaptability of the workplace

Sub-themes: Professional adaptation, role adjustment and clinical preparedness.

- **Clinical preparedness:** Clinical preparedness is the concept, which characterizes the skills of NGNs to safely complete nursing tasks, utilize theoretical knowledge, prioritize patient needs and to adequately respond to clinical changes. It also entails the trust in carrying out the procedures as well as the identification of patient deterioration.
- **Role adjustment:** Role adjustment entails being aware of the responsibilities of a registered nurse, being professionally accountable, adhering to hospital policies and being a member of a multidisciplinary team.
- **Professional adaptation:** Professional adaptation involves learning to communicate well, collaborate, have emotional strength, time management, and coping techniques to work in the real clinical settings.

Trends: With institutional support and transition programs, readiness of people is enhanced.

- Orientation programs assist NGNs to learn about what is expected of them in the workplace as well as alleviate doubt.
- Mentorship and supervision enhance confidence, decision making and clinical competence.
- Experience will enable NGNs to become increasingly independent and professional.

This theme demonstrates that theoretical education is not sufficient to prepare one to be ready to practice. Nurses have to undergo repeated clinical exposure, supervision, and chances to apply the skills in safe and guided settings, which is especially needed by newly graduated nurses. Adaptability at the workplace is enhanced through provision of effective orientation, mentorship, feedback and emotional support by the hospitals. These supports assist NGNs to become familiar with their roles and responsibilities, decrease fear and uncertainty, enhance confidence and become more competent in patient care. Hence, the role of institutional support is a relevant aspect in supporting the transition of newly graduated nurses to independent professional practice as opposed to relying on it.

Simulation based education role.

Sub-themes: Preparation of acute care, emergency response and building confidence.

- **Acute care preparation:** Simulation education equips NGNs with the skills needed to deal with critical conditions of patients like cardiac arrest, respiratory distress, shock, and acute degradation. It enables nurses to engage in clinical assessment and intervention in real-life clinical situations.
- **Emergency response:** Emergency response training will assist NGNs in learning to identify the urgent situations, make rapid decisions, take the right interventions, and effectively communicate with the healthcare team.
- **Confidence building:** Confidence is enhanced when nurses continue practicing clinical situations, get feedback and reflect on their performance via debriefing. This will decrease the fear and enhances preparedness in case of actual an emergency.

Trends: Simulation enhances preparedness to risky clinical circumstances.

- Clinical decision-making and reasoning are enhanced by simulation.
- It enhances collaboration, communication and leadership in case of emergencies.

• The high-fidelity simulation enhances psychological preparedness as it exposes the learners to the real-life clinical pressure.

This theme brings to the fore simulation-based education as a viable intermediary to the classroom education and clinical practice. A controlled and safe setting, high-fidelity simulation offers NGNs the opportunity to train their complex clinical skills without harming patients. It enables the learners to feel life like emergencies, make decisions, carry out interventions as well as have instant feedback. Simulation enhances technical skills, non-technical skills, confidence and preparedness to actual clinical circumstances through repetition and the use of debriefing. Thus, simulation training is very applicable in preparing novice nurses to be ready in case of an emergency and also competent in CPR.

CPR Competency Development

Sub-themes: Response in resuscitation, emergency skills and technical performance.

• **Resuscitation response:** Resuscitation response can be defined as an ability of the nurse to promptly diagnose cardiac arrest, call to help, begin CPR and be an effective part of the resuscitation team.

• **Emergency skills:** Emergency skills involve administering chest compressions, ventilation, emergency equipment, instructions on CPR and coordination during the handling of cardiac arrest.

Technical performance: Technical performance involves depth of compression, compression rate, hand location, rhythm, accuracy of ventilation and the capacity to continue to deliver quality CPR during pressure.

Trends: The quality of response and clinical confidence with innovative CPR training is better.

• CPR training that is conducted through simulation enhances the precision and response time.

• The practice in CPR enhances clinical practice and retention of skills.

• Growth in confidence is achieved with NGNs simulating cardiac arrest situations in real-life situations.

This theme highlights that CPR competency is an essential clinical skill to newly graduated nurses since cardiac arrest involves a dire need to take urgent and essential measures. A low quality of CPR will decrease the probability of patient survival whereas high quality will enhance their survival. The evidence examined indicates that innovative CPR training, in particular, high-fidelity simulation, enhances nurses in the recognition of cardiac arrest, early initiation of CPR, correct performance of compressions and effective performance in a team. Simulation is also beneficial as it allows NGNs to overcome the psychological stress of emergencies and be more confident in and ready to face real cases of cardiac arrest.

Facing the requirement of Structured Transition Programs.

Sub-themes: Mentorship, introduction programs and continuing education.

• **Mentorship:** Mentorship offers new graduate nurses with mentoring services of the experienced nurses with the aim of ensuring that they acquire confidence, clinical judgment and emotional stability. Mentors are also able to give feedback and help in a challenging situation.

• **Introduction programs:** Introduction programs assist the NGNs to understand the hospital policies, routines in the unit, emergency procedures, documentation, and professional expectations.

• **Continuing education:** Continuing education enhances the continuous professional growth through reinforcement of knowledge and skills on topics like CPR, emergency care, patient safety and communication.

Trends: The structured programs lessen the difficulty of transition and favor growth of the professionals.

• Formed programs minimize the stress and uncertainty in the initial practice.

• They enhance self-esteem, ability, and sense of belonging at the workplace.

• They facilitate career-long professional learning and retention.

This theme demonstrates that new nurses who have graduated need to have a structured and sustained support to enable them to effectively enter into professional practice. Structured transition programs help decrease the discrepancy between education and practice by mentoring, orienting, and exposing new clinical practice under supervision and through continued education. These programs make NGNs feel that they are supported, enhance their feelings of belonging, and their professional identity. They also enable the nurses to build on competence in a gradual manner rather than expecting them to act on their own without the adequate preparation. Thus, the structured transition programs should be significant to enhance the clinical performance, job satisfaction, and patient safety.

Competency-Based Assessment

Sub-themes: Professional competence, performance evaluation and practical skills.

• **Practical skills:** Practical skills involve the skill to undertake clinical procedures properly, like CPR, evaluation of the patient, monitor and emergency measures.

• **Professional competence:** Professional competence entails communication, collaboration, decision making, leadership, prioritization, responsibility and capability to act appropriately in times of stress.

• **Performance evaluation:** Performance evaluation is used to assess the application of knowledge and skills of NGNs in real clinical scenarios as opposed to just assessing theoretical knowledge.

Trends: Evaluation ought to be on both technical and non-technical skills.

• The conventional evaluation can be primarily based on checklist fill-out and process.

• Competency based assessment measures the skill accuracy as well as professional behavior.

• OSCE, modified and combined with simulation, is a more realistic and comprehensive technique of assessment.

This theme shows how evaluation of newly graduated nurses with a thorough and practical assessment system is important. CPR competency cannot be measured by merely ensuring that a nurse performs the right procedures but it should incorporate decision making, communication, teamwork, confidence and pressure performance. OSCE with high-fidelity simulation and modifications enables assessors to test technical and non-technical skills in a real-life emergency situation. This method will give a better understanding of clinical preparedness and will allow the NGNs to be ready to deliver safe and effective care in the actual practice environment.

Discussion

The results of the chosen studies indicate that the newly graduated nurses face most often transition-related problems related to the acquisition of knowledge and skills acquired in academic settings and their transfer to real clinical activities. These obstacles can be anxiety, lack of confidence, work load pressure, transition shock and the inability to adjust to complex clinical setting particularly in intensive care and emergency units. According to the studies of Yang and Wu (2025), Alharbi et al. (2023), Sterner et al. (2023), and Yi and Wang (2025), the transition period may have a negative impact on clinical performance in case of the inability to provide the newly graduated nurses with adequate support.

Another finding of the reviewed studies is that practice readiness cannot be attained with the help of theoretical education. Masso et al. (2022) found that the practice readiness is based on clinical exposure, confidence, communication, and institutional support. Likewise, Ahn et al. (2024), Wanas and Hamed (2024) and Kjellsdotter et al. (2026) highlighted that workplace adaptation is a slow process that needs professional guidance, mentorship, and effective transition programs to adapt to the workplace.

There was a new strategy of simulation-based education as a solution to enhancing preparedness among new nurses that were just graduating. Sterner et al. (2023) have discovered that new nurses were more ready to take acute care scenarios with the assistance of simulation-based learning. Hanna (2023) and Clancy-Burgess (2024) also demonstrated that emergency training via simulation enhanced recognition and response and confidence when dealing with critical events. The findings underlie the application of high-fidelity simulation as an intermediary between learning in the classroom and clinical practice.

One of the areas that were found to need special training and evaluation was CPR competency. Hanna (2023) showed high-fidelity cardiac arrest simulation as an effective one in enhancing the response of nursing students to resuscitation prior to professional transition. Sharpnack et al. (2023) also advocated the innovative CPR teaching by organized quality improvement resuscitation programs. These papers propose that CPR training is not merely to be taught as a few simple steps but also to enhance decision making, collaboration and confidence in case of an emergency.

The structured transition and continued education programs are also important as supported by the evidence. Yoon and Bae (2026), Kjellsdotter et al. (2026) and Mashao et al. (2025) demonstrated that introduction programs, simulation-based continuing education, mentorship and emotional support are beneficial to novice nurses. Such programs can lessen the uncertainty, enhance belonging, and enhance professional identity in the early years of practice.

On the whole, the chosen studies are highly supportive of the current study since they indicate the necessity of competency-based training and assessment among new nurses that have just graduated. The conventional method of teaching and assessment might not be adequate to assess actual emergency performance. Thus, incorporation of high-fidelity simulation and altered OSCE may offer more practical and holistic ways of measuring CPR competency not only in terms of technical but also in terms of non-technical skills.

Future Direction

Future studies need to be done on how to come up and pilot standardized modified OSCE tools combined with high-fidelity simulation in the assessment of CPR competency among newly graduated nurses. Longitudinal studies are also required to study whether or not simulation-based training of CPR enhances retention over time, performance at work, and patient outcomes.

Limitations

The limitation of this review is that it only included selected studies and few studies differed in terms of design, population, setting and outcome measures. Also, a number of studies were conducted on the general topic of transition experiences or simulation education, instead of specifically on modified OSCE with high-fidelity simulation to train the CPR competency.

Conclusion

The chosen studies reveal that graduate nurses have serious issues with transition and need to be supported in a structured way, through the use of simulation, and competency-based evaluation. High-fidelity simulation and modified OSCE can be used to enhance CPR competency, clinical readiness, confidence, and emergency response among new nurses to improve their skills in managing emergencies.

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