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CANADIAN ASSOCIATION OF CRITICAL CARE NURSES

Canadian Association of Critical Care Nurses

Vision statement

All critical care nurses provide the highest standard of patient- and family-centred care through an engaging, vibrant, educated and research-driven specialized community.

Mission statement

We engage and inform Canadian critical care nurses through scholarship, education, and networking providing a strong unified national identity.

Values and beliefs statement

Our core values and beliefs:

- Excellence and Leadership
  - Collaboration and partnership
  - Pursuing excellence in education, research, and practice
- Dignity and Humanity
  - Respectful, healing, and humane critical care environments
  - Combining compassion and technology to advocate and promote excellence
- Integrity and Honesty
  - Accountability and the courage to speak up for our beliefs
  - Promoting open and honest relationships

Pathways to success

1. **Leadership:**
   - Lead collaborative teams in critical care interprofessional initiatives
   - Develop, revise, and evaluate CACCN Standards of Care and Position Statements
   - Develop a political advocacy plan

2. **Education:**
   - Provision of excellence in education
   - Advocate for critical care certification
3. **Communication and Partnership:**
   - Networking with our critical care colleagues
   - Enhancement and expansion of communication with our members
4. **Research:**
   - Encouraging, supporting, facilitating to advance the field of critical care
5. **Membership:**
   - Strive for a steady and continued increase in CACCN membership

Letter from the Editor

In this issue of the Canadian Journal of Critical Care Nurses (CJCCN, Volume 37, Issue 2) of 2026, the manuscripts are centered on themes of transitioning into critical care practice, supporting new nurses, and post-graduate specialized professional development within advanced critical care programs across Canada. Together, they highlight the importance of continuous professional growth as practitioners navigate evolving roles, expand their knowledge, and respond to the ongoing complexities of critical care practice.

Regardless of where we are in our careers, each of us remembers our first day in critical care. The uncertainty, responsibility, and steep learning curve are experiences few of us forget. While experience builds confidence, critical care has a way of reminding us that learning never ends. New evidence emerges, technologies evolve, and every patient presents an opportunity to refine our clinical judgment. Remaining curious, asking questions, and continuing to learn is essential to practising in critical care.

Every critical care nurse can remember someone who took the time to answer a question, explain a concept, or offer encouragement during a difficult shift. Those moments shape our practice, and over time, become opportunities for us to support those who follow. The manuscripts in this issue reflect that ongoing commitment to developing nurses throughout their careers, from entry into specialty practice to advanced professional development.

My hope is that the manuscripts in this issue encourage reflection, strengthen your practice, and remind you of the colleagues who helped shape your own journey in critical care. May they also inspire you to do the same for someone else.

All my best,

Kara Sealock, EdD, MEd, RN, CNCC(C), CCNE
Chief Editor
Canadian Journal of Critical Care Nursing™

A Bachelor of Science in Nursing Learning Pathway Into Critical Care Practice: An Innovative Workforce Strategy Focused on Student Support, Transition, and Success

Connie Clark, MSN, RN, Lara Parker, MSN, RN, CNCC(C) and Dione Norby, MSN, RN

Abstract

Aim: *This paper describes a novel approach to addressing new graduate nurse transition and the nursing workforce crisis.*

Background: *The global nursing workforce crisis has pressured local agencies to explore innovative solutions. One of the most challenged practice environments is the intensive care unit (ICU), which requires nursing staff to have specialized nursing knowledge and skills beyond entry-to-practice competencies. There is a growing body of research exploring newly graduated nurses as options to help address nursing workforce challenges in the ICU.*

Description: *The Bachelor of Science in Nursing Learning Pathway allows learners to transition into critical care immediately after graduation. The pathway begins in the final year of the undergraduate program and includes additional theory in critical care, early practice exposure to the ICU, and mentorship support. After graduation, learners are hired into the ICU and have dedicated transition time before completing the critical care certification. A key aspect of the learning pathway is the formalized partnership between the academic institution and the clinical practice setting, where supports are streamlined and resources are shared.*

Results*: The formalized partnership facilitated purposeful and scaffolded learning for students with access to a variety of support options, thus optimizing the transition into practice. Some challenges were related to unit culture, the orientation process, and delineating the learner's scope of practice.*

Conclusion: *Overall, the learning pathway in the ICU has been highly successful, creating opportunities for both students and the hospital unit to support the delivery of high-quality patient care.*

Keywords: nursing workforce, Bachelor of Science in Nursing, intensive care unit, new graduate transition, partnership

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Implications for Nursing

- The global nursing shortages and challenges with staffing in intensive care units (ICUs) across Canada have prompted the need for contemporary efforts to help the nursing workforce.
- The Bachelor of Science in Nursing (BSN) learning pathway is an innovative workforce strategy that includes scaffolded support for entry to practice in the ICU.
- Partnership between academics and practice is key to streamlining support.
- When adequately supported, students can successfully transition into practice in the ICU.

Background

Nurses are vital to delivering health care to clients worldwide. The nursing profession accounts for 59% of healthcare workers, making it the largest occupational group in the health sector (World Health Organization [WHO], 2020). In the context of a global nursing shortage, the WHO (2025) estimates that, if workforce challenges are not addressed, the world will be short of four million nurses by 2030. Multiple strategies at local, national, and global levels, including policy changes, decreasing stress and burnout, expanding recruitment and retention, and improving working conditions, are required (Ben-Ahmed & Bourgeault, 2022; Health Canada, 2024; Kenny et al., 2021; Peters, 2023; Tamata & Mohammadnezhad, 2023). One area of focus is retention, specifically among nurses in the first 2 years of their careers (Peters, 2023). In Canada, 33%–61% of newly graduated nurses (NGNs) change their work location or leave the profession within the first 2 years of practice (Nursing Policy Secretariat, 2019). Much of this can be attributed to transition shock as the NGN moves from student to professional (Casey et al., 2004; Duchscher, 2008; See et al., 2023).

Locally, the government of British Columbia (BC), Canada, struck a working group called the Nursing Education Planning Council (NEPC). The NEPC was tasked with investigating the current contemporary challenges with workforce planning and corresponding strategies for mitigation. According to their report, one identified area of concern was planning for more complex practice environments, such as the intensive care unit (ICU) or the emergency department (ED). Approximately 44% of registered nurses in BC work in practice environments that require education and training beyond the Bachelor of Science in Nursing (BSN) competencies (Nursing Policy Secretariat, 2019). Historically, nurses seeking to practise in complex environments were required to consolidate their skills on an acute medical or surgical hospital unit for several years before transitioning to more specialized units (Baumann et al., 2019). Given

the nursing shortage, there are now fewer nurses available to follow this path; therefore, more creative workforce strategies need to be explored.

The effects of the nursing shortage are more prevalent in the ICU and have only been further exacerbated by the COVID-19 pandemic (Endacott et al., 2022; Gibney et al., 2022). Across Canada in 2022, ICUs have ranked second in overtime hours used to cover nursing shift vacancies (Gibney et al., 2022). The need for overtime can be attributed to the demand for care caused by the pandemic and the specialized practice skills required of ICU nurses (Gibney et al., 2022). Locally, to practise in the ICU, registered nurses must have competencies beyond BSN education and often complete a critical care nursing certification program to receive formal credentials. Appropriate nursing staffing levels within critical care environments are essential for safe patient care, adequate staffing is linked to a healthy work environment, and workforce challenges need to be addressed with innovative solutions that reflect the values of ICU nurses (Blake, 2022). The global pandemic exposed vulnerabilities in ICU nursing staffing plans and with an aging population and a call to increase ICU capacity, this practice context has an urgent need for diverse workforce strategies.

There is a growing body of research exploring how NGNs can help address some of the ICU staffing challenges by transitioning directly into the critical care environment after graduation. While it is acknowledged that transition into practice in the ICU as an NGN poses significant challenges, especially with the specialized knowledge, readiness for practice, and unit socialization (Innes & Calleja, 2018), these novice nurses can successfully transition into practice in the critical care environment with the proper supports in place, such as additional theoretical education, mentorship, and early socialization (Baumann et al., 2019; DeGrande et al., 2018; Madhuvu et al., 2018; Vanderspank-Wright et al., 2020). To promote the successful transition of new graduates into the ICU, support should be streamlined, starting in the BSN program and extending through into the new graduate space, incorporating learning strategies from both educational and practice contexts (Innes & Calleja, 2018; Vanderspank-Wright et al., 2020).

In response to staffing challenges in a local ICU, a practice organization (a health authority), a BSN program, and a specialty nursing certification program formed a partnership to explore and develop a novel workforce planning strategy. The goal of this paper is to describe the creation and implementation of the BSN learning pathway in the critical care environment. The pathway provides students with targeted knowledge, skills, and support to successfully transition into practice in the ICU after BSN graduation, while also addressing the ICU's short- and long-term workforce needs.

Details of the BSN Program

The BSN program is a 3-year accelerated program with three intakes per year. The concept-based curriculum is delivered over nine terms, with most foundational BSN competencies covered in the first six terms. The final year of the program, or terms seven to nine, emphasizes consolidation through extended clinical hours. The BSN curriculum has dedicated space for two elective theory courses, beyond the foundational BSN curriculum, one in term seven and one in term eight. The electives are delivered by the specialty nursing program and include options in critical care, ED, and other specialty nursing contexts. Term nine is a preceptorship learning model in which students work full-time shifts alongside one or two dedicated Registered Nurse preceptors.

Description of the Learning Pathway

The BSN learning pathway into the ICU encompasses several purposeful, scaffolded components, including career planning and recruitment strategies, a student selection process, critical care theory, targeted clinical placements, employed student nurse (ESN) experience, dedicated practice support, new graduate transition time, and a critical care certificate. Figure 1 details the trajectory of the learning pathway.

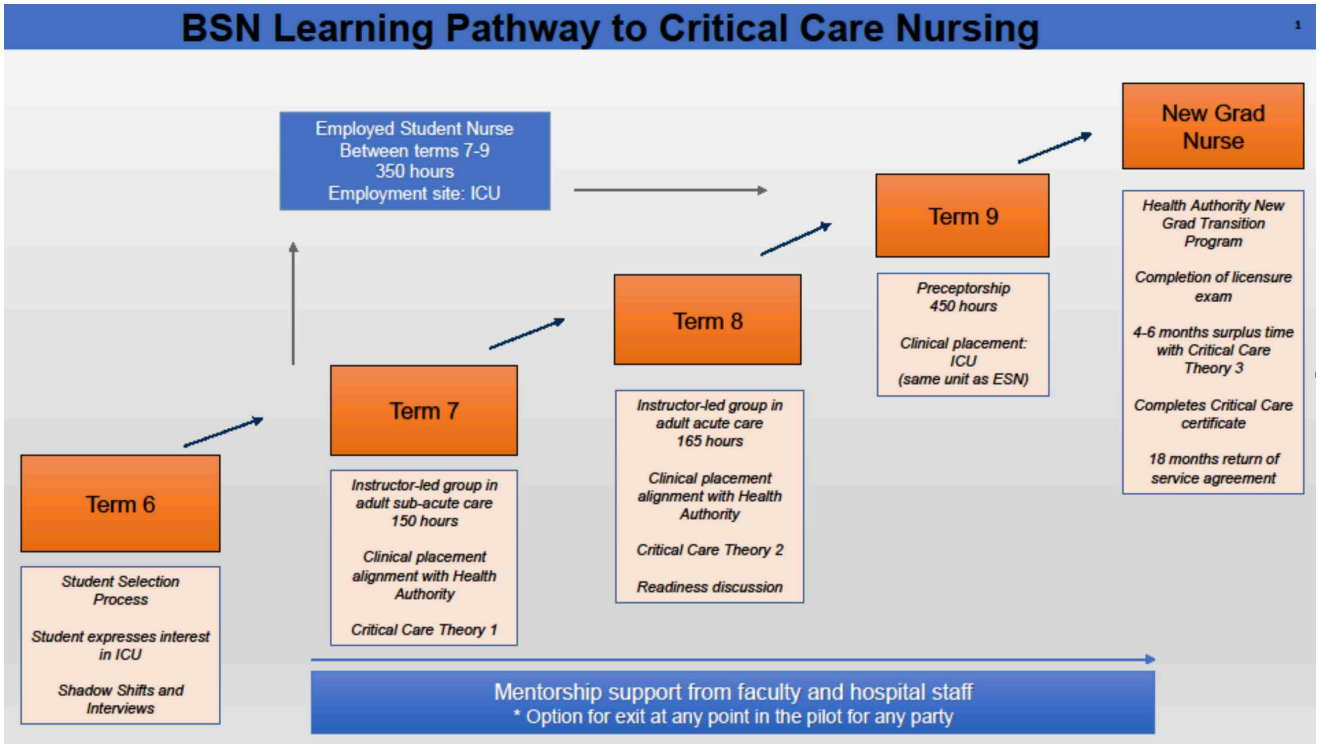
The combined components of the pathway aim to develop the students' practice by providing them with the necessary supportive structures to meet entry-to-practice competencies and transition into the ICU after graduation. A small amount of funding was provided by the BC government to support the resources required to establish the partnership and the learning pathway; however, the majority of the costs associated with delivering the components of the learning pathway were drawn from existing health authority programs (for example, ESN and ICU education training funds). There are no additional costs for the students.

Given the high-stakes nature of the ICU learning environment, student recruitment and selection are essential to the pathway. Student recruitment begins with an information session and the option to shadow a shift in the unit. Together, the information session and shadow shift are intended to give students a clearer understanding of ICU practice and the learning pathway, enabling them to make an informed decision about participation. After the student expresses further interest in joining the pathway, they undergo a student selection process, which is an assessment that includes an evaluation of their nursing practice and competence, self-reflection requirements, and health authority-led interviews. An integrated review by Baumann et al. (2019) identified characteristics that support NGNs with entering complex practice environments, including specific personal, clinical, and relational characteristics. The student assessment scores potential learning pathway students using a clinical competency-based questionnaire, grade-point average, and instructor references, with these data points integrating the personal, clinical, and relational characteristics. Next, students are asked to engage in self-reflection by considering their personal status and long-term career goals. Finally, they participate in an interview with the unit's leadership team in preparation for future employment in the unit. In the end, the student and the health authority must mutually agree to begin the pathway.

Once enrolled, students take the first two critical care theory courses as part of the critical care certification. Additionally, the final three BSN clinical placements are aligned with the health authority and the ICU practice context. The student begins working in the ICU as an ESN, where they gain a

Figure 1

Bachelor of Science in Nursing Learning Pathway to Critical Care Nursing



total of 350 hours consolidating within their scope of practice, socializing to the unit, and earning income as a surplus member of the team. Next, the student spends 450 hours learning and consolidating their skills in the ICU for their final preceptorship, for a combined total of 800 practice hours on the unit upon graduation. The students receive mentorship support from BSN faculty, health authority-based educators, and critical care specialty nursing faculty, which include formalized touchpoints for debriefing and purposeful learning activities to help connect theory to practice.

Upon completion of the BSN program, the NGN is hired by the hospital and spends 4 to 6 months transitioning to practice as a surplus staff member in one of the three critical care units. This transition period enables consolidation of entry-to-practice skills, allows time for completion of the licensure exam, and helps build confidence with independent practice. Learning pathway participants also have access to the hospital-wide new graduate transition program, which offers formalized and tailored support to early-career nurses. At this time, learning pathway participants complete a third critical care theory course as part of the critical care certification program. Following the consolidation period, the NGN is sponsored by the health authority to complete the remaining components of the critical care certificate. Upon completion, the new graduate is a certified critical care nurse and is committed to a minimum of 18 months of full-time equivalent work as part of the ICU team. The 18-month commitment aligns with the return-to-service agreement outlined in the local collective bargaining agreement.

Discussion

Development and Implementation Considerations

Prior to enrolling the first student group on the learning pathway, some key aspects needed to be considered. The strong partnership between the three organizations proved to be the most essential element for the successful implementation of the learning pathway. When establishing the partnership between our three institutions, we first identified a shared vision and a unified goal. A shared goal creates vested interest from all parties (Gubbins et al., 2014, Halili et al., 2024). Furthermore, taking a collaborative approach and using clear communication strategies are also linked to successful academic-practice partnerships (Spector et al., 2021). Therefore, we worked collaboratively to decide on the core components of the learning pathway and the necessary operational considerations. Having three different perspectives ensured that the components captured the needs of people involved and supported change management strategies. We worked together to problem-solve issues and develop an evaluation plan. By forming this partnership between academia and practice, the learner follows an agreed-upon trajectory that begins in the BSN program and transitions into regulated practice, leveraging the shared resources of all three institutions.

To enhance the student experience, the elements of the learning pathway were carefully considered to address the gap between nursing theory and clinical practice, facilitate a seamless transition for NGNs, and prepare students for practice in the ICU. For example, we implemented touchpoints with critical care faculty to facilitate the application of the theory. We

also ensured that learning pathway participants had access to the health authority's pre-existing new graduate transition program. Furthermore, 800 practice hours in the ICU prior to BSN graduation provided consistency in one practice environment. This dedicated practice time improved students' confidence and allowed for early integration into the critical care environment. Students gained progressive exposure to knowledge, skills, unit culture, and team dynamics, easing their transition into practice. Earlier exposure to the ICU context during the BSN program has been found to help smooth transition and better prepare NGNs for work in critical care (Halcomb et al., 2012).

To support the ICU staff, we introduced the learning pathway early, so concerns could be raised and considered. The program goals and implementation plan were shared with staff, and any questions were addressed. "Champions" were identified to help advance the shared vision within the unit culture. Workplace support and a positive culture are crucial for the transition of new graduates (Masso et al., 2022). Staff also needed guidance on how to support BSN students. Directions on the student's scope of practice and BSN learning objectives in a preceptorship learning model were provided. Staff members interested in supporting BSN students were offered health authority-led educational courses to prepare them for the preceptor role, and the unit manager made thoughtful pairings. The purposeful pairing of a preceptor with a student has been identified as a key element to a supportive learning environment and a smoother transition into practice for the student (DeGrande et al., 2018). During the preceptorship, the unit educators provided ongoing, in-the-moment support to help enhance student learning through clinical reasoning and questioning, particularly when the student was unable to perform skills that fell outside their scope of practice.

Along with students and hospital staff, BSN and specialty nursing faculty also required support in implementing the learning pathway. The BSN faculty who taught in preceptorship needed to become familiar with the context of ICU practice. We selected one faculty member who had previously practiced in an ICU to support all students participating in the learning pathway. The faculty member was encouraged to arrange a shadow shift in the unit to reacquaint themselves with the unique aspects of the patient population. Specialty nursing faculty needed additional education on BSN learning needs and how to support students who have not yet entered practice as Registered Nurses. Documents outlining BSN competencies and scope of practice were created and shared with all members of the support team. Additionally, hospital staff and faculty were encouraged to work collaboratively, leveraging their individual expertise to best support the students.

Successes and Learnings

As the first few groups of students moved through the learning pathway, successes were celebrated, and learnings were acknowledged. The leaders from all three institutions worked collaboratively to efficiently and effectively problem-solve issues that arose and prioritized student, staff, and faculty needs. Students were able to focus on their BSN learning needs and maintain their scope, creating space for them to think critically and practise appropriate nursing skills. While it was a common goal for the student to transition and work in the ICU after graduation, it was understood that if more consolidation time was needed for the BSN entry-to-practice competencies, there were opportunities for the learner to enter the ICU at a different time in their nursing career. Unit educators and BSN faculty led coaching conversations with the students to encourage self-reflection on their practice and to identify gaps and individual learning needs. Purposeful self-reflection with guidance and support correlates with the acquisition of nursing knowledge (Johns, 2010; Tutticci et al., 2016).

While overall the first groups of students were successful in the learning pathway, there were several opportunities to learn from the experience. From the evaluation strategy, the three major areas for further development pertained to unit orientation, scope of practice, and unit culture. Students identified challenges with the unit orientation and felt a more formal and organized plan was needed. Baumann et al. (2019) had similar findings. Based on this feedback, the existing ICU orientation was modified to meet the needs of the BSN learners and was offered as part of ESN orientation. Students also identified the need for support with patient assignments and coping with death. In response, a guide was created for assigning ESN and preceptorship students based on their experience in the unit, and information on death, dying, and resiliency was incorporated into the unit orientation.

Both students and staff identified the limited scope of practice of BSN learners as a key challenge. Although students did not advocate for expanding their scope, they acknowledged the strain the limited scope put on their preceptor. The staff felt that there were some skills, such as arterial line blood draws, that could reasonably be included in the students' scope . In discussion with the regulating body, the health authorities' professional practice department, and the BSN program, it was ultimately decided not to expand the scope. Instead, emphasis was placed on the discussion between the preceptor and students to spark clinical reasoning and decision-making to advance the students' thinking. Halcomb et al. (2012) found that although students reported limited knowledge and skill related to nursing practice in the ICU, they were still interested in working in the ICU following graduation. Regardless of the challenge of reduced scope, 12 of the 14 students who participated in the learning pathway are still employed in one of the three critical care units; an 86% retention rate. In addition, four more students enrolled in the pathway are currently completing their preceptorship in the ICU.

Despite our efforts to address concerns from staff about NGNs working in the ICU, some staff nurses struggled with this change. Feedback about the students needing to consolidate their practice on the medicine unit came from several staff members. Staff who felt this way were invited to share and discuss their concerns, ensuring they felt heard and were part of the process. The components of the learning pathway and the shared goal were reiterated and staff members were asked for input on additional actions that may be beneficial in

supporting the NGNs. Students also reported that some staff members were not as supportive of the learning pathway. In response, students were reassigned to work with other nurses while collaborative discussions with concerned staff were conducted. Students were encouraged to debrief their experiences and interactions with the specialty nursing faculty member or unit educator.

Next Steps

As the learning pathway continues to grow, plans for ongoing evaluation and improvement will be refined. Further adjustments and modifications to the implementation and operations will occur based on student, staff, and faculty feedback. Furthermore, there is a need for a more robust evaluation plan using a variety of data collection and analysis strategies. This could include a large-scale study using mixed methods to evaluate the success of the program and its implementation. Additionally, data on student numbers and attrition rates need to be collected. Information on cost-benefit analysis could help facilitate the implementation of the pathway into other ICUs locally, nationally, and worldwide.

Conclusion

The BSN learning pathway into the ICU was created to help address the current workforce challenges faced in ICUs. Through a supportive approach, students can transition into practice in the ICU. The key to successful implementation was a collaborative partnership between academia and practice, with a shared vision and common goal. We experienced many successes and learnings throughout the creation and implementation of the learning pathway, but overall, the pathway created a unique and innovative opportunity for learners to practise in the ICU during their BSN program and ultimately transition into regulated practice in the critical care context.

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Preparing Critical Care Nurses in Canada: An Environmental Scan of Post-Graduate Programs

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Abstract

Purpose: *The aim of this study was to provide an overview of post-graduate adult critical care nursing education programs across Canada.*

Background: *Critical care nurse shortages have created an influx of novice nurses entering intensive care units (ICUs). Limited research is available that describes post-graduate critical care nursing education programs in Canada. These programs provide education on complex topics and advanced training in clinical skills to prepare nurses to care for patients experiencing critical illness and admission to ICU.*

Methods: *We conducted an environmental scan of Canadian university and college websites and email communication with the critical care post-graduate program coordinators. Two reviewers collected information on all programs offered by post-secondary institutions, with certification specific to critical care for novice nurses. The results were summarized and presented in narrative form.*

Results: *We identified 15 critical care programs across Canada. Mean (SD) program costs were $2,740 ($1,788), ranging from $0 to $7,800 and clinical placements included 157 (45) hours, ranging from 0 to 280 hours. Employer support ranged from no funding to full funding.*

Conclusion: *The findings of our environmental scan reveal remarkable variations in program duration and costs. These results contribute to the current understanding and further discussion about critical care nursing education in Canada. Further investigation is needed to understand nurses' experiences with these programs and their impact on organizational, nursing, and patient-centred outcomes.*

Implications to Practice: *This study provides a foundation for discussing current critical care nursing education and increases awareness of available programs and their characteristics. Access to consistent, high-quality training may help to ensure a sustainable supply of skilled ICU nurses across Canada.*

Keywords: critical care, ICU, post-graduate nursing education, nurse

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Patients experiencing critical illness require specialized nursing care in intensive care units (ICUs; Giesbrecht, 2020; Park & Kim, 2024; Patil et al., 2023). In addition to entry-level nursing competencies, critical care nurses require additional education to assess complex patients, use clinical judgment, and implement life-sustaining measures (Park & Kim, 2024). Historically, ICU nurses were required to have acute care experience before entering the ICU (Baudoin et al., 2022). However, recent nursing shortages in Canada have necessitated increased orientation of new critical care nurses, resulting in many ICUs hiring newly graduated nurses (Giesbrecht, 2020). Many new graduates entering ICUs report feeling unprepared for the transition, partly due to a lack of nursing experience and limited instruction on critical illness in undergraduate curricula (Baxter & Edvardsson, 2018).

Benner et al. (1992) suggest that nursing proficiency is developed through education, experience, and understanding. This may be addressed through post-graduate education that bridges the theory-practice gap. Post-graduate certificate programs provide extensive coverage of complex topics and offer additional training, thereby enhancing nurse competence and confidence (Baxter & Edvardsson, 2018). Investing in advanced, specialized education supports career development, ultimately increasing the likelihood of retention (Yarbrough et al., 2016).

However, critical care nurse training in Canada varies significantly by province (see supplementary data). In contrast, other countries, such as Australia, have nationally standardized requirements that at least 50% of ICU nurses possess a post-graduate qualification (Chamberlain et al., 2018). Similarly, Norway mandates 18 months of post-graduate training, including 28 weeks of clinical practice (Wallander Karlsen et al., 2023). Intensive care units with a higher ratio of post-graduate-qualified nurses have improved patient outcomes (Ross et al., 2024). Although countries such as Australia and Norway have published research on critical care education, there is a notable lack of literature from Canada. This gap presents a challenge for nurses interested in critical care careers and for decision-makers regarding ICU training pathways. The aim of this study was to provide an overview of post-graduate adult critical care nursing education across Canada to inform nursing students, frontline nurses early in their career, and policy decision-makers.

Methods

The environmental scan was conducted to systematically retrieve data from online sources following published guidelines (Graham et al., 2008; Wallander Karlsen et al., 2023). Environmental scans are a recognized method of healthcare research used to inform policy and guide evidence-based

decision-making for program development. This approach was selected to identify and present the post-graduate critical care nursing education available, to identify existing gaps in program offerings, and to inform the development of future programs in Canada (Charlton et al., 2019).

A literature search was performed using the CINAHL database, and minimal literature was found discussing post-secondary critical care nursing education in Canada. This finding supported the need for an environmental scan to fill the research gap and explains why our primary sources of information are from non-academic resources.

We consulted researchers with environmental scan experience to design a framework of inclusion/exclusion criteria and data categories through multiple rounds of review. Programs were included if they (1) focused on critical care nursing education; (2) had publicly available online resources; (3) were available in English; and (4) were open to applicants who had completed an undergraduate nursing degree program. Exclusion criteria were (1) nursing residency programs – structured education programs to aid in the transition of new graduate nurses into critical care (Chung & Lim, 2025), (2) hospital-specific orientations, (3) inactive programs, and (4) undergraduate-only programs.

We conducted our environmental scan in June 2024. Two authors (SG and HS) reviewed online resources, including *Critical care nursing programs* provided by the Canadian Association of Critical Care Nurses (CACCN, n.d.). We then performed a Google search using the keyword "critical care nursing education in Canada," screening the first 100 results. This cross-verification confirmed findings across multiple sources. Programs were cataloged and data was extracted by SG into Google Sheets and verified by a second reviewer (HS) (see supplementary data). Discrepancies were discussed by the two extracting authors and the supervising author (CLM) to achieve consensus. Standardized emails were sent to program coordinators requesting missing information. Initially, 16 categories of program characteristics were identified. Four additional categories were added in response to review and feedback from co-authors (Appendix A). We collected publicly available information and our email communications with program representatives were transparent. As such, formal ethics approval was not required by the University of Alberta.

Results

A total of 59 Canadian institutions offering nursing programs were initially identified. After screening, 21 institutions were confirmed to provide post-graduate critical care courses. Four programs were excluded before email follow-up. One program, Eastern Health (Eastern Health, 2025), was eliminated based on website information indicating it was not a post-graduate course. Following email outreach to 20 institutions for additional information, four more programs were excluded: two institutions (Kwantlen Polytechnic [Kwantlen Polytechnic, 2025] and Georgian College [Georgian College, 2025]) no longer offered the courses, one (Hospital for Sick Kids) was an in-house residency program (Hospital for Sick Kids, 2025), and the Michener Institute was entirely employer-run and only available through hospital sponsorship (Michener Institute, 2025). Twelve programs responded to the email inquiry, while eight did not. After review, fifteen programs met the established inclusion criteria (Figure 1). The 15 identified programs varied in several key aspects, including curriculum design, clinical components, and costs (Table 1). Additionally, seven universities have partnered with local health authorities to offer programs that are either entirely covered or significantly reduced in cost to the nurse (Table 1).

Program Characteristics in British Columbia

In British Columbia (BC), specialty education is offered through the British Columbia Institute of Technology (BCIT; BCIT, 2025). BCIT provides a comprehensive program that delivers five online theory courses and two clinical practicum courses with a total of 225 hours of clinical experience (BCIT, 2025). In 2023, approximately 700 students were enrolled in BCIT's program, which included a combination of employer-sponsored and self-funded participants.

Program Characteristics in Alberta

Post-graduate certification in Alberta is offered through two institutions. The first, Mount Royal University (MRU) offers a program based on four theory courses and a 210-hour clinical course component to meet the Level I program requirements (MRU, 2025). Mount Royal University enrollment was 80 students in 2023 (MRU, personal communication, June 7, 2024). The second program, MacEwan University, did not disclose its program curriculum development or overall enrollment statistics (MacEwan University, 2025). The MacEwan program does not include a clinical component. However, it is one of the few fully online, self-directed programs with three required courses. The program is offered at a lower cost, $1,820 compared to $5,800 at MRU (MacEwan University, 2025; MRU, 2025).

Figure 1

Flow of the Selection Process for Included Critical Care Programs

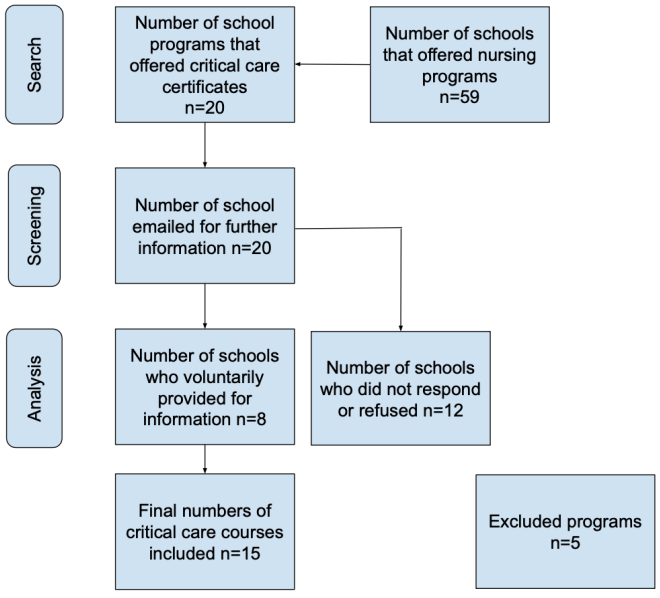

Table 1

Key Characteristics of Post-graduate Critical Care Education Programs

Province	Program	Cost to Student (CAD)	Employer Support	Enrollment Numbers	Clinical Component (hours)
AB	MacEwan University	$1,820	NA	NA	0
AB	Mount Royal University	$1,700	NA	80	210
BC	British Columbia Institute of Technology	$7,894	Yes	700	225
NB	University of New Brunswick	NA	Yes	NA	135
ON	Centennial College	NA	Yes	NA	280
ON	Conestoga College	$3,069	NA	NA	120
ON	Durham College	$1,788	NA	NA	120
ON	Humber College	$2,690	NA	NA	104
ON	Mohawk College	$2,558	Yes	NA	84
ON	St. Lawrence College	$2,189	Yes	NA	120
ON	Algonquin College	NA	NA	NA	120
ON	George Brown College	$2,329	Yes	150-180	232
ON	University of Windsor	$1349	NA	33	0
PEI	University of Prince Edward Island	$600	Yes	10	120–180
SK	Saskatchewan Polytechnic Critical Care Nursing	$3,500	Yes	90	180

Note: NA = Not Available. This table includes data collected from university websites and responses from program coordinators. Values are approximate and current at the time of extraction.

Program Characteristics in New Brunswick, Prince Edward Island, and Saskatchewan

In other provinces, institutions such as the University of New Brunswick (UNB), University of Prince Edward Island (UPEI), and Saskatchewan Polytechnic maintain strong partnerships with local health authorities where health system employers support nurses through tuition sponsorships and salary funding, individually or in combination, during the program (Table 1). The UNB provides six online courses along with a 135-hour clinical practicum course (UNB, 2025). The growing demand for critical care programs in New Brunswick has prompted the expansion of available spots in the upcoming academic year (UNB, personal communication, June 18, 2024). The UPEI structures its program into four phases, offered online and asynchronously, supplemented by in-person skills laboratories and 120–180 hours of clinical practicum, depending on the participant's previous experience (UPEI, 2025). Saskatchewan Polytechnic offers three theory courses either online or in-person and one 180-hour clinical placement (Saskatchewan Polytechnic, 2025; Table 1).

Program Characteristics in Ontario

The province of Ontario hosts the largest number of programs, with nine of the fifteen programs nationwide. All programs have a clinical component (mean [SD] 157 [45], range 84–280 hours), except the University of Windsor, which offers seven online modules that prepare students to attend an in-person simulation lab to complete their certificate (University of Windsor, 2025; Table 1). The University of Windsor program costs $1,349 (University of Windsor, 2025). The remaining eight programs comprise 2–11 courses offered online, hybrid or in-person, and 0–2 in-person simulation labs, and 1–4 clinical practicum placements (Algonquin College, 2025; Centennial College, 2025; Conestoga College, 2025; Durham College, 2025; George Brown College, 2025; Humber College, 2025; Mohawk College, 2025; St. Lawrence College, 2025). Overviews of curricula in at least two programs reference Practice Standards for Critical Care Nursing in Ontario (Critical Care Services Ontario, 2018). Program costs for individual nurses in Ontario range from those fully employer-sponsored, along with a salary during study, to entirely self-funded. Mean (SD) tuition costs among Ontario programs were $2,282 ($533), ranging from $1,349 to $3,069. The attendance and enrollment data were largely unavailable for this province as they were either not publicly reported or not disclosed by the institutions. However, George Brown College had approximately 150 to 180 students enrolled annually (George Brown College, June 6, 2024; Table 1).

Discussion

This study revealed various post-graduate university- and college-based education options for Canadian nurses seeking foundational critical care nursing knowledge and skills. The BCIT reported the highest enrollment rates and Ontario colleges and universities offered the greatest number of critical care certification programs. In contrast, Alberta's critical care education programs were dominated by the employer-provided Orientation Program for Adult Critical Care in Alberta (OPACCA), which all new ICU nurses complete as part of

their orientation (Alberta Health Services, 2021). The presence of OPACCA likely reduces the demand for alternative programs in the province. Tuition costs varied considerably across programs, especially between programs that included a clinical preceptorship component and those that did not. In addition, the duration of clinical preceptorships in critical care education programs was also found to be inconsistent. Further investigation is warranted to explore these differences and to determine their impact on nurse readiness to practise. Differences between Canadian programs in areas such as clinical hours and employer tuition support may contribute to confusion for nurses who are seeking post-graduate education, as well as employers.

Interprovincial discussion regarding national licensure and standardized training is ongoing in Canada (Canadian Nurses Association [CNA], 2025). Developing standardized critical care curricula could support this initiative by ensuring a consistent baseline level of training adaptable to specific clinical contexts (Monforto et al., 2020). In a study of a critical care orientation program, a redesigned standardized format improved attendance and content knowledge among participants (Monforto et al., 2020). Evidence supports that both in-house residency programs and postsecondary-led education programs have improved nurses' experiences and influenced patient outcomes (Baxter & Edvardsson, 2018; Chamberlain et al., 2018; Innes & Calleja, 2018). However, additional comparative research is needed to evaluate existing critical care training pathways in Canada and their respective impact on nursing competency and patient outcomes.

Recent updates to the CACCN Standards for Critical Care Practice (CACCN, 2024), along with the ongoing Canadian Nurses Association (CNA) exam-based certification program, offering credentialing in critical care as a specialty area, are well-positioned to support standardization of education programs. Further investigation is needed in Canada to assess the quality of available programs, their alignment with national standards, and their measurable effect on patient outcomes.

In a post-pandemic call to action, Murphy et al. (2022) suggest that continuing education and increasing access to specialty-specific education are key focus areas for investing in Canadian nurses. These calls to action were made to revitalize the nursing workforce and create sustainable strategies for improving working conditions (Murphy et al., 2022). The CNA reported that nearly 21,000 nurses were working in critical care settings in 2021 (CNA, 2021). Investing in these nurses and supporting their continued specialty education has been shown to contribute to healthier work environments and increased job satisfaction (Nowrouzie et al., 2016; Wei et al., 2023). As employers contend with ongoing staffing vacancies and widespread intent to leave among nurses, the demand for well-prepared critical care nurses will remain a serious challenge for employers as well as educational institutions responsible for their training (Aiken et al., 2002). Recent national efforts, such as Health Canada's Nursing Retention Toolkit, emphasize initiatives that can be implemented to address the challenges of nurse retention to improve working conditions and retain nurses across the country (Health Canada, 2024).

This presents an opportunity to support continuing education by increasing accessibility of critical care education programs. McKillop et al. (2016) found that nurses are motivated to pursue programs that enhance their knowledge and critical thinking skills; however, barriers such as cost and time commitments limit participation (Trinier et al., 2017). While several programs reviewed included financial support from employers, this key element may be a source of inequity and can create barriers to access in regions of Canada where similar support is not available (Cardel et al., 2020). Although several barriers could be inferred from the data, financial variability was most prominent, evident in the higher reported attendance in provinces where employer support was available.

Implications for Nursing Practice

Post-graduate critical care nursing program options present an upstream approach to addressing the shortages in critical care units. Nurses who pursue advanced education and personal resources have demonstrated higher retention rates in ICUs (Oldland et al., 2023). To improve the benefits of critical care programs, advocacy is needed to establish consistent financial support, such as employer funding, to reduce financial barriers and enhance accessibility. Such efforts may increase participation and broaden the impact of specialized post-graduate education on nursing practice. Further research to assess nurse experiences with critical care programs, adequacy of curricula, availability of employer support, and subsequent effects on nursing and patient outcomes, could strengthen the evidence supporting standardized national approaches to critical care nursing education.

Limitations

While this environmental scan provides a valuable overview of critical care nursing programs available to nurses across Canada, several limitations should be acknowledged. First, the use of only two sources to identify programs may have limited the findings. However, we are confident that these sources reflect the typical strategies used by nurses when searching for critical care programs offered by public institutions that are generally accustomed to engaging with prospective students. Second, data collected from post-secondary school websites may be outdated, as program details change frequently. Third, we relied on publicly available information and limited access to complete data for some programs. As a result, key data such as attrition, enrollment, completion, and acceptance rates were often unavailable. To address these gaps, we emailed program coordinators to request additional information to improve accuracy. However, responses varied, with some providing incomplete details and others not responding at all. Despite these limitations, this environmental scan offers a meaningful overview of current critical care post-graduate education programs in Canada and highlights areas for potential standardization and future research.

Conclusion

This environmental scan included 15 Canadian critical care nursing programs and provides an overview of the current landscape of post-graduate critical care education. Our findings reveal remarkable variations in tuition costs, clinical hours, and employer funding, which may pose challenges for

nurses seeking advanced training options. This environmental scan highlights opportunities for dialogue about variation among programs and the need to identify optimal preparation for nurses entering critical care settings in Canada.

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Appendix A

Information Categories Process

	Original	Emailed categories	Final
Initial	City	Qualifications of the instructors teaching the program - i.e., MN or PhD, critical care certification	City
	Province		Province
	Institution	Cost to students for the complete program.	Institution
	Content		Content
	Number of hours	Number of nurses who complete the course each year	Number of hours
	On-site/distance		On-site/distance
	Asynchronous/synchronous/ combination		Asynchronous/synchronous/ combination
	Clinical component		Clinical component
	Clinical hours		Clinical hours
	Evaluation		Evaluation
	Taught by		Taught by
	Cost		Cost
	Number of attendees		Number of attendees
	Where grads work after		Where grads work after
	Admission requirements		Admission requirements
	Qualification awarded		Qualification awarded
Items considered	Program development process	Process for the development of the program curriculum	Program development process
	Use of simulation/skill labs	Main reasons students are enrolling in the program (e.g., already working in ICU or planning to apply)	Reasons to enroll
	Integration of CNA specialty certification content		Work experience required
	Academic outputs		Maximum length of time for completion
	Paid work experience	Maximum length of time allowed for program completion	Employer Support
	Are Licensed Practical nurses included		
	Skills taught		
	Type of critical care		
	Program Pitch		
	Reasons to enroll		
	Work experience required		
	Maximum length of time for completion		
	Employer support		

Supplementary Data

The raw data collection from post-graduate programs is available at:
https://docs.google.com/spreadsheets/d/1sUAzsCc8YYEEw9feOC3MQD639QSiJ2jnxmN_A2wIw7w/edit?usp=sharing

Critical Care Nursing in the Face of Suffering: Camus's Absurdism in Practice

Michael Ng, BScN, RN, and Barb McGovern, MN, RN

Abstract

In the intensive care unit (ICU), nurses frequently encounter ethical dilemmas and witness patient suffering, contributing to moral distress. Albert Camus's philosophy of absurdism, which centres on the conflict between the human longing for meaning and the indifference of the universe, offers a valuable lens for understanding these challenges. Camus proposes revolt as a defiant response to the absurd, one that affirms freedom, embraces passion, and refuses resignation. Applying these principles in ICU practice can enable nurses to act authentically, support patient autonomy, and confront suffering without illusion. This paper explores how Camus's absurdist framework can deepen understanding of moral distress and foster resilience in critical care, illustrated through a clinical exemplar from ICU nursing practice.

Keywords: suffering, moral distress, moral resilience, existentialism, Albert Camus, critical care nursing

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Implications for Nurses

Camus's philosophy of absurdism situates revolt and rebellion as essential responses to meaninglessness. From this lens, practice implications in the ICU include empowering nurses in ethical decision-making, encouraging reflection and debriefing to clarify values, and facilitating patient autonomy to support dignity and meaning making.

Introduction

The intensive care unit (ICU) is a clinical setting where suffering is deeply pervasive, profoundly affecting patients and healthcare providers. In the pursuit of saving lives, invasive, life-saving interventions (i.e., cardiopulmonary resuscitation, mechanical ventilation, and tracheostomy creation) are often necessary. These interventions frequently lead to physiological and psychological deficits, including muscular weakness, neuropathy, joint contractures, anxiety, and depression, all of which can significantly contribute to suffering (Desai et al., 2011; Wallace & McGrath, 2021).

Ethical dilemmas are a common and complex aspect of ICU care. They can arise when healthcare providers unintentionally convey overly optimistic outcomes or prognoses, potentially fostering false hope among patients (Kisorio & Langley, 2016). These dilemmas may also occur when the wishes of patients are overridden by the decisions of substitute-decision makers or healthcare providers, leading to treatments perceived as futile or non-beneficial. Such decisions can prolong suffering or deny a dignified death (Mealer & Moss, 2016; Wiegand & Funk, 2012).

Intensive care unit nurses who bear witness to these dilemmas may be limited in their capacity to influence patient outcomes due to internal constraints, such as a lack of self-confidence and conflicts with their personal beliefs, as well as external constraints, including inadequate staffing and restrictive institutional policies (Mealer & Moss, 2016). These ethical dilemmas in ICU care can often result in moral distress, which can contribute to burnout and a subsequent decline in empathy (Arnold, 2020; Fumis et al., 2017; Ramírez-Elvira et al., 2021).

In this context, existential perspectives, such as Albert Camus's philosophy of absurdism, provide a valuable lens to understand and address these challenges. Camus's (1942/1955) philosophy explores how to confront feelings of hopelessness and anguish in an existence that appears devoid of meaning, offering a framework for perseverance and resilience. By applying these principles, nurses can navigate the moral distress and existential challenges inherent in ICU care, while supporting patients as they confront their own struggles with meaning and suffering.

Confronting the Absurd: Revolt and Rebellion

Camus's philosophy of absurdism provides a compelling framework for understanding the human condition in relation to meaning in life. The *absurd*, as defined by Camus (1942/1955), emerges from the contradiction between humanity's desire for meaning and an indifferent universe that offers none. For those encountering this tension, acknowledging life's lack of inherent meaning may evoke a profound sense of despair that undermines the will to live.

However, Camus (1942/1955) rejects the passive acceptance of the absurd and nihilistic despair. Instead, he calls for a revolt—a conscious and ongoing refusal to surrender to the absurd. Revolt begins with the acknowledgement of the absurd, but continues as a sustained act of defiance against it. Revolt does not eliminate the absurd but affirms life within it. From revolt arises freedom. When individuals relinquish the search for ultimate meaning, they are freed from the constraints of imposed meaning-making pathways, such as social norms, cultural expectations, or metaphysical dogma. This freedom makes authentic action possible, guided by internally defined values, rather than externally imposed values. Out of this freedom emerges passion, as the individual chooses to live fully and intensely in the present despite life's absurdity.

Camus (1942/1955) presents the myth of Sisyphus, condemned to push a boulder uphill only to watch it roll back down, forcing him to repeat the cycle for an eternity. This fate symbolizes the repetitive and seemingly purposeless struggles of human existence. Yet, despite the futility of his task, Sisyphus becomes the *absurd hero*. By embracing the struggle, Sisyphus revolts; in choosing his response, he discovers freedom; and through his defiance, he lives with passion, fully engaged in the act of living. As Camus (1942/1955) concludes, "one must imagine Sisyphus happy" (p. 123).

Camus (1951/1954) later develops these ideas into the concept of *rebellion*. Whereas revolt marks the individual's refusal to submit to the absurd, rebellion extends this refusal into an ethical stance that affirms the value of human life within an absurd reality. As Camus (1951/1954) states, "I rebel—therefore we exist" (p. 22), rebellion is not simply an assertion of self but a declaration of solidarity with others who share the same condition. In this way, rebellion is both personal and collective as it affirms a shared humanity and resists dehumanization, insisting on dignity rather than passive resignation.

Navigating the Absurd in the ICU

The Emergence of Absurd in the ICU

Camus (1942/1955) contends that suffering, loss of meaning, and overwhelming hardship compel individuals to face the absurd. In the ICU environment, where death and suffering are pervasive, these confrontations are especially pronounced. The relentless challenges endured by patients, combined with the continual exposure to suffering by nursing and healthcare staff, create an environment where confronting the absurd becomes inescapable. The ensuing despair erodes the personal, religious, or spiritual frameworks through which individuals seek meaning.

The Absurd and Moral Distress in Nursing Practice

The absurd and moral distress are deeply interconnected, emerging together in the ethical dilemmas of nursing practice. Moral distress arises when nurses recognize what is morally correct, but feel constrained or powerless to act due to internal or external barriers (Epstein & Delgado, 2010; Mealer & Moss, 2016). This tension reflects the absurd, embodying the conflict between a nurse's intent to act meaningfully and a reality that obstructs this action. The resulting moral distress can manifest psychologically as depression, anxiety, guilt, and emotional withdrawal, and physiologically as pain and palpitations (Oh & Gastmans, 2015). In this way, moral distress becomes a visceral expression of the absurd.

Through Camus's (1942/1955) lens of absurdism, nurses can resist despair by embracing their freedom to live passionately, even within the constraints of clinical practice. This resistance is rooted in the affirmation of core nursing values, such as empathy, patient-centred care, and advocacy. By upholding these values alongside personal principles, nurses confront moral distress without surrendering their integrity amid clinical complexities. In this way, nurses can sustain their commitment to care with resolve and purpose, even in the face of life's absence of ultimate meaning.

Camus's philosophy thus empowers nurses to take purposeful action in ethically fraught situations. For instance, when a patient's prognosis is poor and further invasive interventions may only prolong suffering, nurses can initiate and lead palliative care discussions. By advocating for a shift to comfort-focused care, they prioritize the patient's dignity and quality of life, challenging the institutional emphasis on aggressive treatment at all costs. Similarly, nurses may resist rigid protocols by tailoring care plans to individual patient needs, such as adjusting visitation policies to allow family presence during critical moments, thereby fostering emotional support and human connection. Through such actions, nurses assert their values in defiance of systemic constraints.

Facilitating Patient Dignity Amid Absurdity

Rebellion in the ICU, understood through Camus's philosophy, is not expressed in dramatic acts of defiance but in a humanistic refusal to let suffering erase dignity or autonomy. For patients facing debilitating illness and the erosion of self, this defiance may take shape in the choices they make about how to live and how to die in the face of the absurd. Nurses play a vital role in supporting patient agency through care that honours cultural values, personal beliefs, and end-of-life preferences. By empowering patients to assert their wishes, voice concerns, and resist dehumanizing systems, nurses help translate rebellion from philosophical principle into relational practice. In this way, even amid suffering, patients can preserve a sense of identity, meaning, and control.

An ICU Nurse–Patient Encounter with the Absurd

Clinical Exemplar

The following clinical exemplar illustrates these concepts in practice, drawing on the experience of the first author (MN), an ICU Registered Nurse with 8 years of practice in primary care hospital settings, including 4 years in the ICU at an urban academic institution.

A critically ill patient was admitted to the ICU with respiratory failure related to their cancer diagnosis. The patient endured multiple setbacks, including cancer remission and prolonged intubation, resulting in the need for a tracheostomy. These complications left them unable to perform routine activities of daily living, such as walking, talking, and eating. When providing care, the nurse performed advanced assessments, complex symptom management, curative treatments, and life-sustaining interventions. While these measures preserved their physiology, they were insufficient to alleviate personal suffering.

The patient expressed to their family and healthcare providers that they detested this state of existence and wished to cease all treatment, initiating discussions around end-of-life care. During this time in the ICU, improvements in clinical stability were evident, but the guarded prognosis of a potentially terminal cancer left significant uncertainty regarding recovery.

Despite efforts by the healthcare team, the nurse, and the patient's family to highlight the physiological progress since ICU admission, the patient remained steadfast in the decision

to pursue a palliative option. Adding to this challenge were external pressures from dialysis providers who continued to visit the patient to plan for ongoing treatments, as well as specialists who, despite limited interactions with the patient, inquired about when treatment interventions might resume. These visits conflicted with the patient's wishes and contributed to the complexity of the situation.

The nurse experienced moral distress in response to the patient's decision to withdraw from life-sustaining treatment, despite the nurse and healthcare team's encouragement to continue care. This moral distress was accompanied by feelings of dejection and sadness. Nevertheless, the nurse collaborated closely with the healthcare team to honour the patient's resolution, coordinating the cessation of therapeutic interventions, and providing guidance on the end-of-life process.

Analysis Under an Absurdist Lens

Patient Revolt

The absurd presented itself to the patient in the form of prolonged suffering and a life stripped of the meaning they once knew. Confronting the reality of both the condition and prognosis, they faced the futility of continued medical intervention, which preserved the body but not the sense of self. Revolt emerged through the assertion of control over current circumstances, by choosing to end treatment. This was not an act of surrender but a deliberate affirmation of personal values, an effort to reclaim dignity by resisting imposed expectations of what life should be. Despite clinical improvement, the patient rejected the notion that mere survival was sufficient and instead defined dignity and quality of life on their own terms. By embracing personal autonomy and choosing their path, the patient enacted a powerful revolt against the inevitability of prolonged suffering and uncertainty.

Nursing Revolt and Rebellion

For the nurse, the absurd emerged in the conflict between a professional commitment to provide care and support recovery, and the patient's decision to end treatment. This revealed a core tension in nursing: the struggle to uphold meaning in care when outcomes diverge from personal or professional values.

The nurse's moral distress, as described by Mealer and Moss (2016), arose from the clinical situation, internal conflicts, and external pressures. Clinically, the futility of sustaining life became apparent when treatment no longer aligned with the patient's goals or relieved suffering. Internally, the nurse wrestled with the desire to nurture recovery and offer hope, while still respecting the patient's choice to withdraw care. Externally, ongoing specialist follow-ups added pressure to persist with treatment, further clashing with the patient's wishes. Together, these forces left the nurse confronting the absurdity of a situation where professional values and lived reality felt irreconcilable.

The nurse navigated this ethical tension through revolt, first by advocating for recovery as a sincere expression of compassion and a refusal to give in to futility. This revolt, rooted in professional integrity, reflected a desire to act meaningfully within an uncertain and indifferent system. As the patient's decision to cease treatment became clear, the nurse's stance shifted into a form of rebellion. No longer limited to personal conviction, rebellion became an ethical act affirming the patient's dignity, autonomy, and right to define existence. Guided by empathy and patient-centred care, the nurse resisted institutional pressures and acted in solidarity with the patient. In this way, the nurse's actions show how Camus's concept of rebellion can serve as a philosophical framework for nursing practice, guiding a moral affirmation of shared humanity and resistance to dehumanizing systems.

Implications for Nurses

Empowerment of Nurses in Ethical Decision-Making

Nurses often experience moral distress when advocacy for patient-centred care is dismissed or when hierarchies exclude them from meaningful input (Jetten & Allard, 2025; Moverley et al., 2023). These structural barriers mirror the absurd, where sincere ethical action is obstructed by institutional indifference. Empowerment requires including nurses in interdisciplinary discussions, validating their perspectives, and ensuring their insights are considered even when they challenge dominant views. In practice, this may mean creating space for nurses to voice ethical concerns in goals-of-care meetings or legitimizing their advocacy for a shift to palliative care.

Reflection and Debriefing to Clarify Nursing Values

Confronted by the absurd, nurses can sustain authentic practice by first clarifying the values that anchor compassionate and resilient care. Reflective practices such as team debriefing help nurses articulate these values and work through the inner conflict of moral distress (Moverley et al., 2023). In doing so, nurses resist resignation and reaffirm the principles that guide their actions. By reclaiming moral clarity, nurses renew their capacity to act with integrity and meaning, even in circumstances that appear futile.

Facilitation of Patient Autonomy

Patients in the ICU may feel stripped of identity, autonomy, and meaning. Nursing capacity to support these patients can feel limited, such as when care is directed by substitute decision-making or institutional pressure to continue non-beneficial treatment. Applying Camus's concept of rebellion here reframes nursing action as an ethical resistance to reducing care to life-sustaining intervention alone. In practice, this rebellion is enacted by redirecting nursing attention toward what remains ethically controllable at the bedside, pertaining to the patient's expressions of choice, culture, and values. This includes pain and symptom management, attentive hygiene, empathic presence, and sustained connection with family. In doing so, nurses ground their practice in actions that remain resolute and unwavering despite uncontrollable outcomes.

Conceptual Limitation of Absurdism in Transcendent Meaning Frameworks

Camus's assertion that the universe is indifferent to humanity's desire for meaning may appear incompatible with theological or spiritual frameworks that affirm transcendent sources of meaning. For many patients and nurses, spiritual or religious

beliefs provide meaningful support amid illness, suffering, and moral distress (De Diego-Cordero et al., 2022; Koonce & Hyrkäs, 2023).

Nevertheless, under substantial duress, the immediacy and persistence of suffering may constrain meaningful engagement with these frameworks, limiting their capacity to adequately support patients and nurses in coping with distress (Byrne & Morgan, 2020; Koonce & Hyrkäs, 2023). Absurdism may offer pragmatic value, not as a replacement for transcendent belief, but as a complementary lens that supports continued authentic and purposeful living in the absence of assured meaning.

Conclusion

Camus's philosophy of absurdism offers a framework for addressing the profound suffering that permeates the ICU. For patients, revolt arises in the refusal to accept suffering as meaningless and in the affirmation of dignity, autonomy, and self-definition, even when outcomes appear futile. Rebellion extends this stance into a collective affirmation of humanity, as nurses stand in solidarity with patients and resist systems that risk compounding suffering. By clarifying their values and acting with integrity, nurses help create conditions in which patients can confront the absurd with agency rather than despair. When nurses and patients confront the absurd together, the ICU becomes not only a site of medical intervention but also a space where resilience, dignity, and humanity endure.

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Becoming a Critical Care Nurse: A Scoping Review of Newly Graduated Nurses' Professional Transition to Practice

William Tessier, MSc, RN, Martin Charette, PhD, RN, Isabelle Ledoux, PhD, RN, Mélanie Lavoie-Tremblay, PhD, RN, Xavier Giroux, MSc, MBA, RN, and Sabrina Blais, MSc, RN.

Abstract

Background and Purpose: *Healthcare facilities are employing various strategies to combat nursing shortages, including recruiting newly graduated nurses (NGNs), defined as registered nurses within their first two years of clinical practice following completion of their initial nursing education, to specialized care settings. Despite their solid foundation of knowledge and skills, NGNs face major challenges, particularly in critical care settings such as emergency departments or intensive care units, where the gap between theory and practice is pronounced. Therefore, this manuscript aims to map the current state of knowledge on the professional transition of NGNs in critical care settings, describe the challenges they experience, and identify the contexts and factors that promote a safe transition to practice.*

Methods and Procedures: *This scoping review followed the Joanna Briggs Institute methodology and PRISMA-ScR guidelines. A comprehensive literature search was conducted across six databases. Eligible studies focused on NGNs' professional transition in critical care settings.*

Results: *Analysis of the included studies revealed five key aspects of the professional transition in critical care settings: (1) preparation for clinical practice, (2) adaptation to critical care, (3) skill development, (4) psychological and emotional challenges and (5) the need for support and guidance. Among these, psychological and emotional challenges constitute the most frequently reported aspect, underscoring the significant mental burden associated with the transition experience. Adaptation to critical care is another widely documented aspect, highlighting the many adjustments necessary for a successful professional transition.*

Discussion and Conclusion: *Important gaps remain, especially in terms of clinical preparation, skill development, and availability of structured support for NGNs in critical care settings. These findings underscore the need for a collective re-examination of how academic education can be better aligned with clinical practice, as well as the implementation of structured transition programs and high-quality support and guidance.*

Keywords: newly graduated nurses, professional transition, critical care nursing, scoping review

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Implications for Nursing Education and Practice

The findings of this review reinforce the following avenues for action to promote a healthy professional transition in critical care settings:

- Strengthening the integration of theory and practice by offering clinical placements that more closely reflect the realities of critical care environments.
- Improving collaboration between educational institutions and clinical practice settings to ensure that theoretical knowledge is seamlessly incorporated into practice.
- Implementing evaluation tools that allow longitudinal tracking of skill development during the first year of practice.
- Developing structured transition programs focused on clinical support and the progressive development of competencies and adjusting professional expectations by acknowledging the time required to develop expertise and autonomy in critical care practice.

Introduction

For more than 50 years, reality and transition shocks have been accepted as inevitable aspects of newly graduated nurses' (NGNs') transition process from education to practice (Duchscher, 2008; Duchscher & Windey, 2018; Kramer, 1974). Transition shock occurs in the weeks or months following entry into professional practice, stemming from an alarming realization that the roles, responsibilities, knowledge, and relationships in which the NGNs become involved are more difficult, dynamic, and intense than expected (Duchscher, 2009). This period triggers feelings of anxiety and incompetence as NGNs are confronted with the reality of nursing practice. For them, negative emotions or perceptions of their role or environment during the first three months of practice are frequently associated with the intention to leave their job within their first year of professional practice (McIntyre et al., 2024; Reebals et al., 2022; Wakefield et al., 2023).

To combat this, NGNs need consistency, predictability, stability, and familiarity during the first months of their professional practice (Charette et al., 2019; Duchscher, 2008; Wakefield et al., 2023). Scholars have even recommended that NGNs

begin their professional practice in acute care settings such as medicine, surgery, and geriatrics, where care is more predictable (Duchscher, 2008). However, the workforce shortage in several sectors have resulted in healthcare organizations employing various strategies to address the crisis, including recruiting NGNs into specialized care settings (Baudoin et al., 2022; Bryant et al., 2024; Hodgson et al., 2024). For example, in the province of Quebec, the percentage of NGNs who began their careers in a critical care unit rose from approximately 10% in 2017–2018 to nearly 20% in 2022–2023 (OIIQ, 2023).

To combat this, NGNs need consistency, predictability, stability, and familiarity during the first months of their professional practice (Charette et al., 2019; Duchscher, 2008; Wakefield et al., 2023)nursing education has shifted to competency-based education (CBE. Scholars have even recommended that NGNs begin their professional practice in acute care settings such as medicine, surgery, and geriatrics, where care is more predictable (Duchscher, 2008). However, the workforce shortage in several sectors have resulted in healthcare organizations employing various strategies to address the crisis, including recruiting NGNs into specialized care settings (Baudoin et al., 2022; Bryant et al., 2024; Hodgson et al., 2024). For example, in the province of Quebec, the percentage of NGNs who began their careers in a critical care unit rose from approximately 10% in 2017–2018 to nearly 20% in 2022–2023 (OIIQ, 2023).

Despite their solid foundation of knowledge and skills, professional transition poses a major challenge for NGNs particularly within critical care settings such as emergency departments or intensive care units, where the gap between theory and practice is pronounced (Wakefield et al., 2023). Although several studies have focused on their professional transition in acute care settings, few have explored this phenomenon in critical care settings such as emergency departments and intensive care units. Thus, understanding the various aspects of professional transition—the process through which NGNs acquire the skills, knowledge, and values of nursing culture in the context of critical care—is crucial (Duchscher, 2009).

Objectives

The main objective of this scoping review is to map the current state of knowledge on the professional transition of NGNs within critical care settings. More specifically, it aims to:

1. explore the aspects of the professional transition of NGNs in critical care,
2. describe their perceptions and experiences regarding the professional transition within critical care settings, and
3. identify the contexts and factors that promote a healthy professional transition to improve integration and support practices for NGNs at the start of their careers.

Methods and Procedures

A scoping review was conducted in accordance with the Joanna Briggs Institute (JBI) methodology and the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR extension) (Peters et al., 2021; Tricco et al., 2018). The former was chosen for its rigour, transparency, and flexibility, as well as its alignment with PRISMA-ScR reporting standards.

Eligibility criteria were developed using the Population-Concept-Context (PCC) framework, as recommended by JBI (Peters et al., 2021). The population comprised newly graduated nurses, defined as registered nurses within their first year of clinical practice following completion of their initial nursing education. The concept focused on the professional transition experience. The context included critical care settings such as intensive care units and emergency departments. A detailed description of the inclusion and exclusion criteria structured according to the PCC framework is presented in Table 1.

The databases CINAHL, MEDLINE, EMBASE, PubMed, PsycINFO, ERIC, and Érudit were searched for publications from 2004 to 2024. The search strategy (presented in the Supplementary Material) was developed by the research team in collaboration with a university librarian. Covidence software (Veritas Health Innovation, 2022) was used to gather and screen articles. The stages of the identification, selection, and

Table 1

Eligibility criteria for articles

	Inclusion criteria	Exclusion criteria
Study types	Empirical, Peer-reviewed studies using qualitative, quantitative or mixed-methods design	Theoretical writings, opinion pieces (discussing authors' values, beliefs, or feelings), editorials, and any other non-peer-reviewed publications
Population	NGNs with less than 12 months of practice	Studies involving other healthcare professionals
Phenomenon of interest	Studies exploring professional transition	Research on transition programs, therefore not directly related to the experience of transitioning from education to practice
Context	Critical care settings	Other healthcare settings
Language	English and French	Other languages
Date	2004–2024	

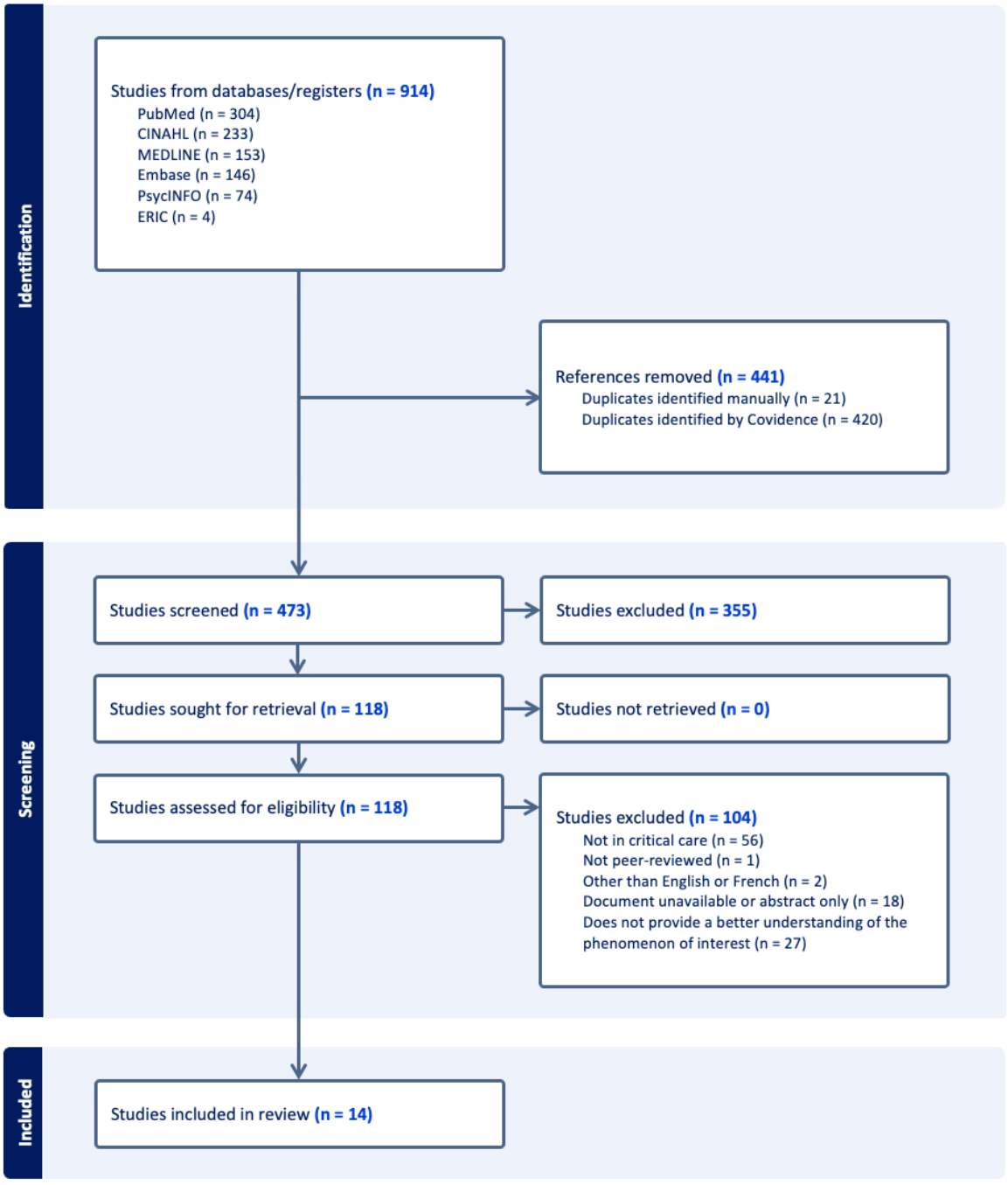
data extraction were conducted independently by two team members (Author E and Author F), each of whom reviewed all articles. The initial search identified 914 potential articles, which were then screened for inclusion according to the predefined criteria.

Study Selection Process (Screening)

Titles and abstracts were screened independently by two members of the research team (Author E and Author F) following a calibration exercise with 25 articles to ensure consistency in the application of the inclusion and exclusion criteria. This step made it possible to exclude 441 duplicates and 355 other articles that clearly did not meet the inclusion criteria. The remaining 118 articles were retrieved and independently reviewed in full text following a second calibration test with 10 articles to confirm alignment between reviewers. At this stage, 104 articles were excluded. The reasons for exclusion are presented in Figure 1, in a PRISMA flowchart. Throughout the process, conflicts were resolved by a third person (Author A). Finally, 14 articles were included in the study.

Figure 1

PRISMA Flowchart



Date Extraction and Analysis

Data extraction was conducted by two independent researchers (Author A and Author B) using an Excel-based data chart to extract information from each article, including the title, first author's name, year of publication, location of the study, study objective, methodology used, population, sample size, practice setting, and findings. The extracted data were compared and synthesized into a single document by the same researchers. A descriptive synthesis of the results was then conducted. Data extracted from the 14 studies were analyzed inductively to identify recurring categories. These categories were iteratively refined and grouped into five main aspects of NGNs' professional transition in critical care.

Results

Table 2 presents a synthesis of the 14 articles included in this review. Eleven were qualitative, two were quantitative, and one used a mixed-methods design. The majority of these studies were conducted in intensive care units (n = 10), while a smaller number were conducted in emergency departments (n = 4). Geographically, most studies were carried out in North America (n = 9), while three were conducted in Europe, one in Asia, and one in Oceania, highlighting the predominance of North American literature on professional transition in critical care settings.

Across the 14 included studies, psychological and emotional challenges were the most frequently reported aspect of NGNs' professional transition in critical care, appearing in all studies (32 occurrences, defined as coded instances across the included articles). Adaptation to critical care was also widely documented, with 26 occurrences across 11 studies. The need for support and guidance was identified in 10 studies (16 occurrences), while preparation for clinical practice was discussed in 8 studies (16 occurrences). Skill development was the least frequently reported aspect, appearing in 7 studies (13 occurrences). Most studies addressed more than one aspect of the professional transition. These aspects are presented below and offer an in-depth understanding of the main dimensions characterizing the professional transition of NGNs in critical care settings.

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Table 2

Articles Included in the Review (n = 14)

Author (Year) Country	Study Aim	Design	Major Findings
Bryant et al. (2024) Canada	To investigate the perspectives of NGNs who participated in the ED practice pathway and stakeholders involved in pathway development and implementation	Interpretive description	Three themes were constructed from the data. Contextual circumstances represented the context and circumstances that set the backdrop and influenced NGNs' experiences of the pathway and their transition. The pathway reflected NGNs' actual experiences and key pathway informants' perspectives of the pathway. Finally, changes in perceived competence represented NGNs' self-perceptions of competency and key pathway informants' perspectives of NGNs' competency resulting from the pathway.
De Grande et al. (2018) United States	To explore the experiences of NGNs who were hired into adult ICUs and survived their transition from novice to competent nurses, starting the third year of practice	Qualitative hermeneutic phenomenology design	The overall meaning of having become competent in adult ICU is being comfortable with being uncomfortable. Related themes include confidence and uncertainty, gaining experiences and forever learning, intuition and intuitive knowing, difficulties and stress, courage and assertiveness, and the team and support persons.
Duchscher et Painter (2021) Canada	To explore the experience of integrating NGRNs into the ED and examine features of the ED practice context that may be directly relevant to the transition experience of NGRNs.	Interpretative phenomenological approach	Successful workplace integration into an accountable and highly responsible professional role involves the development of a professional identity; immersion in and assimilation of the existing workplace culture; adjustment to the physical, intellectual, and emotional demands of the new role; and navigation of the social, relational, and lifestyle changes that often accompany a major shift on the continuum of life processes.

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Author (Year) Country	Study Aim	Design	Major Findings
Gellner et al. (2023) United States	To better understand novice nurses' perceptions of their transition to critical-care practice and to describe all eligible critical-care nurses' perceptions of a healthy work environment.	Quantitative descriptive design	Nurses reported highest satisfaction with opportunities for advancement, encouragement, benefits, and scheduling and least satisfaction with vacation and salary. The areas of highest satisfaction with the work environment were professional role (n = 10) and peer support (n = 8). Nurses reported challenges related to fears (n = 7), workload (n = 7), lack of confidence (n = 7), role expectations (n = 6), and orientation issues (n = 4). The most commonly identified areas for improvement included the work environment (n = 9), orientation (n = 8), support (n = 3), and socialization (n = 3).
Labrague (2024) Philippines	To test the intermediary effect of emotional exhaustion on the association between transition shock in novice ER nurses, adverse patient events, and nursing care quality	Cross-sectional study design	Transition shock in novice ER nurses contributed to heightened emotional exhaustion, leading to an increased incidence of adverse patient events and a decline in the quality of nursing care.
Lewis-Pierre (2014) United States	To generate a theory to explain workplace readiness and needs of NGNs entering the ICU from the viewpoint of managers, clinical educators, preceptors, and new RN graduates.	Qualitative grounded-theory study	The following four themes emerged: (1) embracing the new ICU role, (2) overwhelming experience of performance ambiguity or anxiety, (3) adapting to the ICU, and (4) embodying the new ICU RN role.
McKenzie et al. (2021) Australia	To explore the experiences of newly qualified registered graduate nurses' clinical and professional learning experiences, during their first six-months of post registration employment within a graduate nurse transition program in a NICU	Qualitative narrative inquiry approach	The following four themes emerged: (1) feeling unprepared, (2) horizontal violence, (3) supportive structural environment, (4) and seeking feedback.
O'Kane (2012) United Kingdom	To explore NQNs' experience of starting their career in the ICU, discuss areas that affect nurses' induction into critical care, and compare similarities and differences between NQNs' and senior nurses' opinions of the phenomena.	Comparative, qualitative approach (descriptive)	NQNs' experiences of beginning work in ICUs centered on the following themes: (1) expectations, (2) challenges, (3) preconceptions, and (4) support.
Patterson et al. (2010) United States	To gain an understanding of how NGNs who are oriented to emergency nursing as their first professional area of nursing employment perceive the orientation program and emergency nursing at the beginning and end of a 6-month program	Descriptive study, using both qualitative and quantitative methods	Understanding the experience of NGNs in the emergency setting provides crucial information for orientation program design. Incorporating active teaching-learning and socialization strategies early in an orientation program may facilitate the transition from novice nurse to beginning competent nurse level.

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Author (Year) Country	Study Aim	Design	Major Findings
Reyes (2013) United States	To investigate and describe the effectiveness of ADN programs in preparing NGNs for a successful transition from nursing students to graduate nurses practicing in critical care settings	Qualitative hermeneutic phenomenological study	ADN graduates are not adequately prepared for practice in critical care units as first job assignments after graduation. All participants reported that their schools had done a good job of preparing them to be registered nurses (RNs); however, there seemed to be some confusion regarding being prepared to be an RN versus being prepared to be a critical care RN.
Serafin et al. (2022) Poland	To explore Polish novice nurses' readiness to practice in an ICU	Qualitative phenomenology	The majority of respondents replied that they were not prepared to work in an ICU after graduation. Professional orientation was planned—generally for a period of 3 months; however, in most places it was shortened. The respondents identified the five competencies most needed to work in an ICU: communication, teamwork, professional self-confidence, knowledge, and the practical use of knowledge.
St Clair (2013) United States	To answer the question: What is the process NGNs in critical care experience as they transition from student to staff nurse during orientation?	Qualitative descriptive study employing grounded theory methodology	The preliminary theory comprises two clear emergent stages NGNs experience as they transition from student to staff nurses in critical care. The first stage is titled, the "Beginning" and the second stage is titled, "Moving On". Each stage has 4 themes that represent the meanings NGNs attributed to their experiences as they transitioned during orientation. Stage I, known as the "Beginning," is when the orientee works with a preceptor. Stage II, called "Moving On," is when the orientee works independently.
Stewart (2021) United Kingdom	To explore new nurses' learning experiences in a large ICU in the United Kingdom	Exploratory qualitative case study methodology	Findings indicate that ICU is a challenging learning environment for new nurses owing to the vast number of skills that must be developed in a short period of time. Forming supportive social relationships proved important in helping new ICU nurses learn and adapt to this complex clinical environment. The high-risk culture of ICU makes it harder to learn, particularly for internationally educated nurses. Frequently changing shift patterns also impacts learning.
Turpel (2017) United States	To explore the socialization that occurs during shift report for newly licensed RNs in critical care with the goal of identifying propositions for further study	Exploratory, single case study	Patterns that emerged from the data centered on: (1) being new means feeling unprepared, ill equipped, and overwhelmed with shift report; (2) digging deeper to understand the patient through shift report; (3) learning the art of communicating as a critical care nurse through reporting; (4) conveying the patients' stories in shift reports enhances understanding; (5) getting to know the experienced nurses; and 6) being judged during shift report hones and sharpens the skills of a critical care nurse.

Note. ADN: associate degree nursing; ED: emergency department; ER: emergency room; ICU: intensive care unit; NGN: newly graduated nurses; NGRN: newly graduated registered nurses; NICU: neonatal intensive care unit; RN: registered nurse; NQN: newly qualified nurse

Preparation for Clinical Practice

This first aspect encompasses NGNs' perceptions of their theoretical and practical preparation before they enter critical care settings. It emphasizes the perceived gap between academic training and clinical expectations, a phenomenon widely documented in the literature (Bryant et al., 2024; Lewis-Pierre, 2014; Reyes, 2013)clinical educators, preceptors, and new registered nurses (RN. This theory–practice gap is particularly pronounced in critical care units, with NGNs typically feeling well prepared to assume the general nursing role but ill-equipped to fully take on the responsibilities of a critical care nurse (Reyes, 2013)hermeneutic phenomenological study was to investigate and describe the effectiveness of associate degree nursing (ADN.

Several authors attribute this misalignment between academic and clinical environments to a lack of specific preparation, particularly insufficient exposure to the complex clinical cases encountered in critical care during academic training (Duchscher & Painter, 2021; Gellner et al., 2023; Reyes, 2013) no published research is available on the relationship between employing newly graduated nurses (NGNs. The two main factors that explain this lack of exposure are limited clinical placement hours in critical care settings and large clinical group sizes that restrict learning opportunities (Serafin et al., 2022).

Inadequate preparation can adversely impact NGNs' perceived competence. For instance, they report difficulties in articulating clinical observations and documenting them appropriately in patient charts, leading to concerns about the legal aspects of practicing in critical care (Serafin et al., 2022). Consequently, NGNs often experience heightened apprehension when caring for clinically unstable patients (Reyes, 2013). Duchscher and Painter (2021) emphasize that NGNs are not adequately prepared to manage high-acuity care or witness traumatic situations, exacerbating their work-related stress. Additionally, specific clinical situations, such as end-of-life care in critical care contexts increase discomfort among NGNs, who often feel unprepared to support patients and families during these emotionally intense moments (Gellner et al., 2023).

Thus, early exposure to critical care during nursing education could play a key role in facilitating NGNs' professional transition (Bryant et al., 2024; O'Kane, 2012). Bryant et al. (2024) highlight the importance of enculturating nursing students into the norms and practices of critical care environments during academic training. This process is a determining factor in promoting smoother transition during the first three months of professional practice (Bryant et al., 2024; O'Kane, 2012). Considering the evidence synthesized of early exposure, strengthening academic preparation and increasing exposure to critical care during nursing education may help bridge the theory–practice gap, thereby facilitating the subsequent integration of NGNs into critical care settings (Bryant et al., 2024; Duchscher & Painter, 2021).

Adaptation to Critical Care

Adaptation to critical care represents a considerable challenge for NGNs, given the complexity of clinical environments, professional culture, and specific working conditions of these settings. This process involves immersion in the dominant culture, the gradual development of a professional identity, and acquisition of essential competencies.

Adaptation begins with immersion in the unit's culture. However, NGNs' fear of appearing incompetent is a major barrier (Serafin et al., 2022), forcing them to navigate a delicate balance between demonstrating confidence and maintaining humility to build credibility (DeGrande et al., 2018). Over time, positive socialization experiences and support from more experienced colleagues enhance their confidence, thereby facilitating their adaptation to critical care (Patterson et al., 2010; Serafin et al., 2022; Stewart, 2021).

In the early stages of practice, NGNs tend to adopt a prescriptive and linear approach, focusing primarily on the execution of specific tasks (Duchscher & Painter, 2021; O'Kane, 2012; Reyes, 2013), reflecting the absence of tacit knowledge and specific competencies required in critical care (Duchscher & Painter, 2021). Documented challenges include clinical assessment, recognition of subtle clinical changes, prioritization of care, management of critical care medications, and communication with other members of the clinical team (Duchscher & Painter, 2021; Labrague, 2024; Lewis-Pierre, 2014; Serafin et al., 2022). Intraprofessional communication also poses a major challenge, particularly during shift report, which is often perceived by NGNs as stressful and intimidating owing to their difficulties in synthesizing and prioritizing relevant clinical information (Turpel, 2017).

Finally, several authors emphasize that the environment and working conditions in critical care directly influence NGNs' adaptation. The clinical setting, high workload, and emotional demands may occasionally prevent NGNs from delivering safe care, which negatively affects their transition experience (Gellner et al., 2023; Labrague, 2024; Patterson et al., 2010). Thus, stability and consistency at the start of their careers are especially important in facilitating adaptation and allowing NGNs to gradually develop confidence and autonomy (Stewart, 2021).

Skill development

This third aspect addresses the progression of clinical competencies and the gradual development of professional confidence as NGNs gain experience in critical care settings.

Right from their orientation, NGNs express a clear preference for exposure to clinical cases and hands-on experiences (Reyes, 2013; St Clair, 2013)hermeneutic phenomenological study was to investigate and describe the effectiveness of associate degree nursing (ADN. They often feel oversaturated with theoretical training because of their academic background (Patterson et al., 2010). Moreover, NGNs report difficulties balancing full-time work with the obligation to attend additional theoretical training sessions.

Several studies, therefore, highlight the importance of prioritizing practical learning to support skill development during NGNs' professional transition. Gellner et al. (2023) mention the value of pedagogical approaches that focus on clinical experience, while Patterson (2010) underscores the effectiveness of active learning

strategies in progressing from novice to competent nurses, the third stage of Benner's (1982) theory of skill acquisition. Among these strategies, simulation is particularly relevant as it facilitates the development of psychomotor skills and the understanding of complex scenarios, addressing NGNs' need to practice and refine their abilities to manage various clinical situations encountered in critical care settings (Patterson, 2010).

A major challenge for NGNs is the development of clinical judgment, a core competency in critical care (Lewis-Pierre, 2014). Supernumerary orientation, clinical exposure, and time are key factors in fostering the development of clinical judgment and professional intuition (De Grande et al., 2018; St Clair, 2013; Turpel, 2017). Although the latter is a debated concept in the literature, it remains central to the fifth stage of Benner's (1982) model of skill acquisition. At this expert stage, nurses develop an intuitive understanding of clinical situations, which is crucial to recognize early signs of patient deterioration and make sound clinical decisions (Lyneham et al., 2008). This professional intuition is believed to develop progressively through the integration of theoretical knowledge, the accumulation of clinical experience, and learning from intuitive episodes, enabled by an internal feedback process triggered when intuition guides action (McCutcheon & Pincombe, 2001).

Psychological and emotional challenges

This fourth aspect refers to the psychological and emotional challenges experienced by NGNs during their professional transition, highlighting the prominence of transition shock in the first months of practice. This aspect is widely documented across the identified studies.

From the outset of their careers, NGNs become aware of their lack of preparation for working in critical care settings (McKenzie et al., 2021; Reyes, 2013)during their first six-months of post registration employment within a graduate nurse transition program in a Neonatal Intensive Care Unit (NICU. The realities of clinical practice and demanding professional expectations, particularly in caring for clinically unstable patients, contribute to feelings of uncertainty and diminished confidence among NGNs at the start of their careers (De Grande et al., 2018; Lewis-Pierre, 2014), exacerbated by shortened orientation periods, which limit the opportunity for gradual adjustment to the clinical environment (McKenzie et al., 2021; Serafin et al., 2022).

Simultaneously, many NGNs report negative experiences related to the attitudes of experienced nurses, describing feelings of rejection, intimidation, and judgment (Bryant et al., 2024; De Grande et al., 2018; Reyes, 2013). For example, some experienced nurses express reluctance to welcome new NGNs, openly voicing the view that nurses should gain experience in acute care units before working in critical care (Bryant et al., 2024; Reyes, 2013). Others refuse to support NGNs or simply avoid answering their questions (Bryant et al., 2024), leading to heightened stress as NGNs feel pressured to prove themselves (Reyes, 2013). Many also experience persistent self-doubt related to the responsibilities of autonomous practice following orientation (Gellner et al., 2023; McKenzie et al., 2021; O'Kane, 2012; Patterson et al., 2010; Serafin et al., 2022; St Clair, 2013). The accumulation of these negative emotions can result in emotional exhaustion, undermining motivation, engagement, and the capacity to meet patients' needs (Labrague, 2024).

The psychological and emotional challenges described in the literature are often framed as components of transition shock, primarily stemming from the gap between NGNs' expectations and clinical realities (De Grande et al., 2018). This shock appears to be experienced by all NGNs, regardless of their individual characteristics. In other words, transition shock does not vary according to gender, age, educational background, or employment status (Labrague, 2024). During this period, documented emotional responses range from mild nervousness to feeling completely overwhelmed (De Grande et al., 2018; McKenzie et al., 2021; St Clair, 2013; Turpel, 2017).

The need for support and guidance

This fifth aspect emphasizes the importance of dedicated resources to support and guide NGNs. To facilitate a healthy professional transition and ensure the retention of the nursing workforce, healthcare organizations must implement multiple strategies.

The studies included in this review highlight the need for experienced, trained, and dedicated staff to educate and support NGNs. Structured support that aligns with academic preparation is crucial to help NGNs adapt to clinical practice (Bryant et al., 2024; Duchscher & Painter, 2021; Lewis-Pierre, 2014; Serafin et al., 2022). Preceptor nurses (staff nurses working on the unit who guide the students) are consistently identified as key figures who positively influence the transition experience, particularly when they are available and engaged in their role (O'Kane, 2012). This support is critical during unsociable working hours (evenings, nights, weekends), when experienced nurses are limited, yet sustained supervision is still required for NGNs to progress toward autonomous practice (Lewis-Pierre, 2014; McKenzie et al., 2021). However, preceptors may occasionally struggle to determine the appropriate level of support needed to foster NGNs' development (O'Kane, 2012). Additionally, balancing learning opportunities with patient safety in critical care contexts can be challenging (Stewart, 2021), further highlighting the importance of preceptors specifically trained to support NGNs.

Beyond preceptors, the entire care team plays an essential role in NGNs' transition. Experienced nurses, for example, should recognize the challenges NGNs face and provide support whenever possible to facilitate their adaptation to clinical practice realities (Stewart, 2021). Interactions with team members also enable NGNs to gain experience and learn, ultimately helping build their confidence (De Grande et al., 2018; Duchscher & Painter, 2021). Turpel (2017) identifies shift handovers as key opportunities for NGNs to learn from colleagues and continue their professional development. Teamwork is a vital component of a healthy transition (Reyes, 2013).

Another significant challenge highlighted in this review is NGNs' dissatisfaction with the feedback they receive early in their careers, which they perceive as overly harsh, overly direct, or simply absent. A lack of feedback has been linked to

increased anxiety among NGNs, despite most expressing openness to constructive criticism (McKenzie et al., 2021). Frequent feedback has been identified as a success factor, as it helps meet learning needs and maximizes professional development (Patterson et al., 2010).

To effectively meet NGNs' needs, organizations must foster a culture of collaboration and mutual support within teams rather than relying solely on preceptors (De Grande et al., 2018). They must also recognize the importance of NGNs' support networks, both within and outside clinical settings. While organizations have little control over NGNs' personal lives, positive leadership can help promote a healthy work–life balance (De Grande et al., 2018). Flexible scheduling that preserves opportunities for social connections and rest may also contribute to a healthier transition.

Discussion

This scoping review allowed us to map the current state of knowledge on NGNs' professional transition in critical care, understand the challenges they experienced when beginning their careers in these settings, and identify contexts that promote a successful transition into these environments. The findings highlight five crucial aspects of NGNs' professional transition in critical care.

Among these five aspects, psychological and emotional challenges are recurrently addressed across all reviewed studies, underscoring the considerable burden associated with the transition experience. Adaptation to critical care was also widely documented in most studies (11 of 14), emphasizing the many adjustments required for a successful transition. Nevertheless, three aspects of the professional transition in critical care remain underexplored in research: preparation for clinical practice, skill development, and the need for support and guidance. These findings highlight gaps in the current literature and the need for future research to investigate these dimensions of the transition experience.

Accordingly, the following section offers a critical analysis of the five aspects identified in this review, comparing them with findings from other studies. While the literature largely converges on the challenges associated with NGNs transition to critical care, this discussion also engages with alternative interpretations.

Preparation for clinical practice is the first key aspect underlying NGNs' transition to critical care settings. Although the theory–practice gap has been long documented (Landers, 2000; Rolfe, 1993)have been accompanied by demands on nurse educators to look at new ways to facilitate learning in the clinical area (Camiah 1996, several authors contend that this gap is even more pronounced in critical care environments (Hussein et al., 2019; Innes & Calleja, 2018). According to Patterson et al. (2010), these settings are particularly challenging because of the intensity of the work pace, broad skill set required, and high level of clinical complexity.

Several factors contribute to the gap between theoretical education and clinical practice. First, students often report insufficient opportunities during clinical placements to apply and integrate the knowledge acquired in theory courses (Singh et al., 2024). It is not uncommon for clinical placements to occur in units that do not reflect the content taught in the curriculum or for students to have limited access to critical care settings, resulting in suboptimal preparation for practice (Elias & Day, 2020). Moreover, Singh et al. (2024) note that nursing students frequently have a limited understanding of the nurse's role. This lack of clarity may be partly attributed to curricula that are not closely aligned with real-world practice and to ambiguities surrounding learning objectives during clinical placements.

The lack of collaboration between educational institutions and clinical settings also plays a role, further compounded by clinical instructors who may lack sufficient experience (Singh et al., 2024). The unfamiliarity of clinical instructors with unit-specific procedures is an additional barrier to effectively bridging theory with practice (Gassas, 2021). This can even lead to tensions and disrespectful behavior toward clinical instructors from experienced nurses (Singh et al., 2024). Furthermore, even in the presence of preceptors, a persistent gap between theory and practice remains. In a preceptorship context, experienced nurses tend to maintain task-focused routines that may not align with the evidence-based care taught in the academic program (Gassas, 2021).

Overall, these findings highlight the critical role played by clinical educators and preceptors in reducing the theory–practice gap. These individuals are essential to not only helping students put classroom knowledge into practice but also ensuring that learning objectives are achieved. These observations align with the findings of the present scoping review, which underscore the value of clinical placements in critical care settings to foster a smoother professional transition into complex practice environments (Bryant et al., 2024; O'Kane, 2012).

Beyond curricular and clinical exposure, preparation for practice must also be understood through a broader professional and developmental lens that contrasts with deficit-oriented explanations of unpreparedness. Embedded within healthcare's professional and organizational cultures, graduation is often framed as the endpoint of a developmental journey. This framing may reinforce the expectation that NGNs should already function as fully autonomous professionals (Duchscher, 2008; Gassas, 2021). Such expectations may compel NGNs into forms of autonomy that are misaligned with their developmental needs at the outset of practice (Hussein et al., 2019; Reebals et al., 2022). While graduation confers the formal status of *being* a nurse, the process of *becoming* a nurse has just begun. This distinction helps illuminate, in part, the ambiguity experienced by NGNs during their first months of practice.

Many NGNs enter the workforce with the expectation that nursing practice primarily consists of applying learned knowledge to predefined situations. As practice unfolds, however, they encounter the plural, uncertain, and unpredictable nature of care, giving rise to a tension between being a nurse and feeling like one (Duchscher, 2009; Charette et al., 2019). This tension becomes particularly salient in critical care settings, where complexity, instability, and high-acuity situations intensify the demands placed on NGNs (DeGrande et al., 2018;

Wakefield et al., 2023). Consequently, the challenge extends beyond preparation for practice and into the broader process of adaptation to critical care settings.

Adaptation to critical care begins with awareness of the realities of the clinical environment, including the work setting, the high acuity of care, and the instability of patients' conditions (Duchscher & Painter, 2021; Gellner et al., 2023; Lewis-Pierre, 2014). This adaptation also involves immersion in the dominant culture and an evolving sense of professional identity. The former is expressed through a desire to be accepted by fellow nurses (Duchscher & Painter, 2021).

Several literature reviews have highlighted the importance of socialization during professional transition (Hampton et al., 2021; Innes & Calleja, 2018; Wakefield et al., 2023). Peer recognition and a sense of belonging within the team are key elements of a successful transition. Conversely, feeling like an outsider in the care team is alienating for NGNs (Wakefield et al., 2023). Developing a sense of belonging to the profession and the team is therefore a fundamental lever enabling NGNs to construct their professional identity and envision their future role in any care setting (McClunie-Trust et al., 2024). Socialization supports NGNs in building their identity by gradually adopting the core values, norms, and nursing knowledge , while becoming familiar with their unit's policies, procedures, and routines (Hampton et al., 2021; Innes & Calleja, 2018). This socialization process is shaped by organizational factors including unit culture, the quality of interprofessional relationships, and available support structures (McClunie-Trust et al., 2024). These findings, combined with the results of our scoping review, reinforce the idea that the entire care team plays a role in NGNs' professional transition (De Grande et al., 2018; Duchscher & Painter, 2021; Stewart et al., 2021), and emphasize the need to foster a supportive and inclusive environment to ensure the successful transition of NGNs into critical care practice.

Skill development specific to critical care is a central concern for NGNs. Although many report feeling underprepared for professional practice, the literature paints a more nuanced picture. A systematic review found that the skill level of NGNs is generally assessed as good, acceptable, or adequate (Charette et al., 2020), corresponding to the novice or advanced beginner stage in Benner's (1982) model. This finding is consistent with NGNs' limited clinical experience. A scoping review by Masso et al. (2022), supports this view, concluding that criticisms and concerns about NGNs' competencies are often amplified by unrealistic expectations in clinical settings. Specifically, the high demands of caring for clinically unstable patients contribute to NGNs' sense of uncertainty and loss of confidence early in their careers (De Grande et al., 2018). Thus, NGNs' feelings of insecurity may not necessarily reflect a true deficit in knowledge and skills but a subjective perception of being insufficiently prepared (Elias & Day, 2020; Kaldal et al., 2023; Masso et al., 2022) as their first job post-registration. Additional objectives were to identify their lived experiences, to understand the unique challenges that they face and make recommendations based upon the findings, to support their transition from student to registered nurse in this environment. For the purposes of this review the term Critical Care is synonymous with the Intensive Care Unit (ICU. This perspective challenges dominant clinical narratives that frame NGNs in terms of skill deficits and instead situates competence development within a normal trajectory.

Clinical judgment is recognized as one of the most challenging competencies to master early in practice. A systematic review by Mendívil-Pérez et al. (2025) identified clinical simulation as the most commonly used educational intervention for developing this skill. However, according to Bussard et al. (2024) EMBASE (Ovid, while clinical judgment is routinely assessed in academic contexts, it is rarely evaluated in practice settings, especially during NGNs first year of clinical work. This underscores the absence of structured clinical judgment assessments in practice settings. To address this issue, the authors recommend implementing a validated tool to support longitudinal assessment at regular intervals, which would help guide feedback and promote NGNs' professional growth. The use of such a standardized instrument could facilitate reflection-in-action and strengthen NGNs' clinical judgment (Bussard et al., 2024).

Finally, recognizing that skill development is a gradual process, progressing as experience is gained, is essential. Over time, NGNs become better at setting priorities, taking appropriate actions, and mobilizing available resources (De Grande et al., 2018). Thus, organizations must adjust their expectations and allow NGNs the time they need to progress in a healthy and sustainable manner across the various stages of their transition to critical care (Duchscher, 2008).

Psychological and emotional challenges identified in this literature review align with findings from other authors. Several studies highlight the intensity and variability of emotions experienced by NGNs, ranging from excitement to fear (Elias & Day, 2020; Wakefield et al., 2023). This emotional lability is especially evident during the first weeks of practice, when the initial enthusiasm gives way to feelings of insecurity, anxiety, and self-doubt (Wakefield et al., 2023).

This emotional imbalance may be partly attributed to the transition shock described by Duchscher (2009). Masso et al. (2022) further argue that most NGNs will inevitably experience some degree of transition shock, regardless of the clinical setting, given the significant shift from the structured, relatively predictable academic environment to new practice expectations and responsibilities. From this perspective, emotional distress is understood as a normative developmental response rather than an indicator of individual inadequacy.

While transition shock is typically limited to the first few weeks or months after entering the profession, some elements of transition shock may persist throughout the first year of practice. Nevertheless, Hampton et al. (2021) note that negative emotions tend to decrease as NGNs grow more comfortable within their unit and more familiar with their role, highlighting the early months of practice as a pivotal period in the transition process.

Psychological and emotional challenges, coupled with negative perceptions of NGNs' role or work environment, are key contributors to burnout and turnover in clinical settings (McIntyre et al., 2024; Polat, 2018; Reebals et al., 2022; Wakefield et al.,

2023)the emergency nursing workforce shortage is of critical concern. Aim: To synthesise the evidence and assess the scope of literature regarding factors that contribute to turnover and retention amongst emergency nurses.\nMethod: A scoping review using the Joanna Briggs Institute approach was undertaken. Five databases (Embase, MEDLINE, PsycINFO, CINAHL, and Business Source Complete. In light of this reality, the need for structured support and guidance becomes especially meaningful.

The need for support and guidance is the cornerstone of a successful professional transition for NGNs in critical care settings. Numerous studies highlight the vital importance of having a dedicated resource person with strong interpersonal, educational, and clinical skills to bolster NGNs' confidence, competence, and sense of support (Elias & Day, 2020; Hussein et al., 2019; Innes & Calleja, 2018; Kreedi et al., 2021)as their first job post-registration. Additional objectives were to identify their lived experiences, to understand the unique challenges that they face and make recommendations based upon the findings, to support their transition from student to registered nurse in this environment. For the purposes of this review the term Critical Care is synonymous with the Intensive Care Unit (ICU. Hussein et al. (2019) emphasize that appropriate clinical supervision and realistic assignment of responsibilities help prevent NGNs from being placed in clinical situations that exceed their skill level, thereby supporting their intent to remain in their current specialty.

Moreover, the quality of interactions with mentors profoundly shapes their transition experience. Although NGNs appreciate exposure to diverse clinical approaches, they also emphasize the need for consistency and stability in the guidance they receive. Frequent mentor changes can create feelings of insecurity and hinder their integration into the team (Elias & Day, 2020).

Finally, a positive work environment supported by structured transition programs and an inclusive team culture not only facilitates NGNs' integration into critical care but also promotes their retention in these practice settings (Kreedi et al., 2021)stress and lack of support. Therefore, many of them consider leaving their nursing roles. This systematic review aims to explore the experiences of newly graduate registered nurses about the transition from student nurse to graduate nurse in clinical practice. A qualitative systematic review was conducted using inclusion and exclusion criteria and PRISMA guideline. Twenty-three studies are included in the review and analysed using thematic analysis. The four researchers managed quality appraisal and data extraction. Of 23 studies included in the review, 22 were qualitative studies, and one was mixed methods. Following the thematic analysis, four themes were identified: (i.

These findings collectively highlight the critical role of organizational support and high-quality clinical mentorship in ensuring a healthy professional transition in critical care contexts.

Implications for nursing education and practice

The findings of this review reinforce the following avenues for action to promote a healthy professional transition in critical care settings:

- Strengthening the integration of theory and practice by offering clinical placements that more closely reflect the realities of critical care environments.
- Improving collaboration between educational institutions and clinical practice settings to ensure that theoretical knowledge is seamlessly incorporated into practice.
- Implementing evaluation tools that allow longitudinal tracking of skill development during the first year of practice.
- Developing structured transition programs focused on clinical support and the progressive development of competencies and adjusting professional expectations by acknowledging the time required to develop expertise and autonomy in critical care practice.

Beyond these recommendations, it is essential to recognize professional transition not merely as a vulnerable period to be mitigated but also as a pivotal opportunity for professional development. This period represents a key phase in the process of professionalization, where NGNs develop clinical competencies, internalize the norms and values of the profession, and progressively construct their professional identity (Bélisle et al., 2021). Embracing this period as a foundation for long-term engagement and growth in critical care can contribute to both individual fulfillment and workforce sustainability.

Strengths and limitations

This scoping review followed a rigourous methodology outlined by the JBI. However, several limitations must be acknowledged. First, although the objective was to focus specifically on the transition experiences of NGNs in critical care, the total number of studies included is relatively small. Of the 14 articles, 5 were published more than 10 years ago. Moreover, the included studies covered a broad range of critical care contexts (e.g., emergency departments, general, neonatal, and cardiovascular intensive care units), which limits the transferability of the findings. Only 4 of 14 studies focused specifically on the transition into emergency care settings rather than intensive care. Although these environments share some commonalities, notable differences in the nature and organization of work may significantly influence the transition experience. This limitation raises important questions about the extent to which findings from intensive care contexts can be transferred to emergency care settings.

Conclusion

Results from this scoping review highlight the complexity of NGNs' transition into critical care settings, confirming well-known challenges, including the emotional burden and the need to adapt quickly to a demanding environment. However, important gaps remain, especially in terms of clinical preparation, skill development, and the need for support and guidance, necessitating a collective re-examination of how to better align academic education with clinical practice, implement structured transition programs, and promote high-quality support and guidance. Future research should investigate these gaps to help improve preparedness for practice and foster the growth of competent critical care nurses. Such efforts are essential not only to support NGNs but also ensure long-term critical care workforce sustainability.

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Supplemental Material

Search Strategy Used in Databases

#	Query	Limiters/Expanders	Last Run Via	Results
S3	("Beginner nurse*" OR "Graduate nurse*" OR "Novice nurse*" OR "New graduate nurse*" OR "Newly qualified nurse*" OR "Newly graduated nurse*" OR "New nurse*") AND (Transition OR Reality OR "Theory-practice gap" OR Integration OR "Readiness for practice" OR "First year of practice" OR "Entry into practice") AND (Emergency OR "Critical care" OR "Intensive care" OR "Critical care unit" OR "Intensive care unit" OR "ICU" OR "Trauma care" OR "Acute care" OR "Critical care nursing" OR "Trauma center")	Limiters - Publication Date: 20040101-20241231 Narrow by Language: - english Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	234
S2	("Beginner nurse*" OR "Graduate nurse*" OR "Novice nurse*" OR "New graduate nurse*" OR "Newly qualified nurse*" OR "Newly graduated nurse*" OR "New nurse*") AND (Transition OR Reality OR "Theory-practice gap" OR Integration OR "Readiness for practice" OR "First year of practice" OR "Entry into practice") AND (Emergency OR "Critical care" OR "Intensive care" OR "Critical care unit" OR "Intensive care unit" OR "ICU" OR "Trauma care" OR "Acute care" OR "Critical care nursing" OR "Trauma center")	Limiters - Publication Date: 20040101-20241231 Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	241
S1	("Beginner nurse*" OR "Graduate nurse*" OR "Novice nurse*" OR "New graduate nurse*" OR "Newly qualified nurse*" OR "Newly graduated nurse*" OR "New nurse*") AND (Transition OR Reality OR "Theory-practice gap" OR Integration OR "Readiness for practice" OR "First year of practice" OR "Entry into practice") AND (Emergency OR "Critical care" OR "Intensive care" OR "Critical care unit" OR "Intensive care unit" OR "ICU" OR "Trauma care" OR "Acute care" OR "Critical care nursing" OR "Trauma center")	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	267

Publishing as a Nurse: From Idea to Publication

Julia St. Louis, MN, RN, and Oliver De Laurentiis, MN, RN, CNCC(C), CHE

Abstract

Nurses generate important clinical insights, quality improvement (QI) initiatives, and practice-based innovations, yet many nurses view academic publishing as inaccessible or reserved for researchers and physicians. This false perception contributes to the underrepresentation of nursing voices in published literature, despite nurses being uniquely positioned to identify gaps, try out solutions, and translate evidence into practice. Publishing is a professional skill that can strengthen clinical leadership, advance careers, and improve patient care.

The authors aim to demystify the publishing process for registered nurses (RNs) and to provide a practical, step-by-step guide for moving from an initial idea to an accepted manuscript. Five key stages of the publication pathway include (1) identifying a publishable idea; (2) building an authorship team; (3) choosing a suitable journal; (4) writing and submitting the manuscript; and (5) navigating peer review. Practical guidance is provided on each step in the publication pathway.

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DOI: 10.5737/23688653-37237

Nursing research is a broad and impactful field spanning topics as diverse as workforce issues (Buckley et al., 2022), pregnancy in incarcerated women (Paynter et al., 2019), machine learning (Kosmidis et al., 2025), and early childhood development (Kurbatfinski et al., 2025). Nurses, in their daily work, often recognize issues requiring change or a closer look at the unit, organizational, or systems level. Nurses generate uniquely practical insights through their close, sustained engagement with patients and health systems, yet many perceive academic publishing to be inaccessible. As nearly 50% of the global healthcare workforce (World Health Organization, 2017), nurses' active participation in scholarship is essential to ensuring that the scientific questions we pursue remain grounded in real-world care and patient needs.

While nurses have started to make gains in academia and publishing, nurses remain under-represented in published literature. In a review of publications from a large critical care network, nurses comprised only 5.7% of first authors and 19.4% of senior authors (Jeyapalan et al., 2023). Representation in the published literature is important; scientific literature is not neutral, but rather a record of what a field deems important and to be counted as evidence at a given time. When nurses make the effort to publish, they expand what is studied to include nursing priorities that are often formed by proximity to patients.

This article is intended to demystify the publishing process for nurses and provide a detailed guide to the publishing pathway, from idea to accepted manuscript. By clarifying how publishing works in practice, we aim to reduce barriers to entry and empower more nurses to contribute their clinically informed perspectives to the scholarly literature. Expanding nursing authorship is a critical step toward a more inclusive, patient-centred, and clinically meaningful science of care.

Identifying a Publishable Idea

There is more to publishing than funded, large-scale clinical investigations. An excellent place to start is by reviewing what you have already done – excellent entry-level publications can include reworked projects from graduate school (Lopez et al., 2022), case studies or clinical pearls (Harber et al., 2024), poetry or short essays in medical humanities journals (Anyadike, 2025), or sharing a successful quality improvement project from your unit (Wedemire et al., 2024). Literature reviews do not need to be scoping or systematic reviews to be published; smaller scale reviews can still make a useful contribution to the literature, if you are clear about the scope of the work conducted and target an appropriate journal (St Louis et al., 2022; Weerasinghe et al., 2023). Another option is to look for research newsletters that publish research commentaries (Mooney-Doyle, 2025). Writing a commentary on a research project can be a useful exercise in engaging with literature and can help you to begin to flex your writing muscles.

Building an Authorship Team

It is important to determine the authorship team at the outset of your work preparing a written piece for publication. Some writing pieces, like poems or clinical pearls, do not require an authorship team. Most publications, however, will be strengthened through collaboration. Consider the work that each person will take on and the experience that each person brings to determine the order of authorship from the outset of writing the piece. Changes to authorship order mid-way through a project can lead to frustration and difficult dynamics, so we recommend that you have this conversation at the outset of the project.

Authorship has important academic implications and also implies accountability for a published piece of writing (International Committee of Medical Journal Editors [ICMJE], n.d.). Standard recommendations for determining authorship are provided by the International Council of Medical Journal Editors (ICJME; ICJME, n.d.), and they recommend that authorship should be based on the following four criteria:

- substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND

- drafting the work or reviewing it critically for important intellectual content; AND
- final approval of the version to be published; AND
- agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Lead authors are responsible for identifying who will meet these criteria, when initially planning the work, and making required modifications as the work progresses (ICMJE, n.d.). It is the collective responsibility of all authors to ensure that all individuals named as authors meet all four criteria (ICMJE, n.d.). It is recommended that the authorship group reviews the ICJME criteria and order of authorship at the outset of the work, and collectively repeats this review as needed and prior to manuscript submission, to ensure that no changes need to be made (ICMJE, n.d.).

Choosing a Suitable Journal

One of the most strategic decisions to make at this stage in your writing journey is selecting the right journal for your manuscript. Ideally, a target journal should be identified prior to writing a manuscript. The first consideration for selecting a journal is editorial fit – look for journals that publish population, methods, and authorship groups with similar profiles to yours. For example, a manuscript highlighting a critical care QI initiative is not likely to fit in a journal that primarily publishes biomedical data from wet labs. Another tip is to review 3–4 recent issues and look at who publishes in that journal. Look for authors who are like you, such as other working clinicians or early-career researchers. Finally, look for journals that publish similar manuscript types – journals that only publish multi-site randomized controlled trials (RCTs) are not likely to be a fit, but there are many journals that publish single-site studies, case studies, and practice reflections.

After a suitable journal has been identified, review their guide for authors. Writing your manuscript within the constraints of their requirements will save you significant time later. For first-time authors, making an upfront investment into fit and formatting is often the difference between a desk rejection and a manuscript that is seriously considered by editors and reviewers.

Writing and Submitting the Manuscript

Unfortunately, the only way to write is to sit down and put words on a page. The most important step is to get the first draft written! Avoid editing and writing at the same time; start by documenting your ideas and edit for clarity and flow later.

Navigating Peer Review

Peer review can be daunting but is intended to improve your manuscript. It is important to remember that peer review is not a comprehensive judgement of your worth or intelligence, but rather a process to identify whether your manuscript is the right fit for that journal. It is normal and expected to need to submit to two or more journals after rejections but worry not! Your paper will find the right home if you persist.

Remember that peer review is volunteer work conducted by busy people, so take their comments with a grain of salt. Your role in responding to peer review is to address the reviewers' concerns sufficiently to justify publication in that journal. While most comments will likely be useful and improve your manuscript, some might be at odds with what you have written. Try to put yourself in the reviewer's shoes and identify what they have misunderstood so you can clarify it in your manuscript.

Conclusion

With time and persistence, you can eventually receive that coveted email reporting that your manuscript has been accepted for publication. We contend that it is worth the trouble, as publishing is a professional skill that can enhance your career and increase the nursing voice in the published literature.

Author Notes

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Safer Packaging for Neuromuscular Blocking Agents

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ISMP CANADA Report a med error

In this regular column, ISMP Canada will feature a critical care-related medication story and share practical learning for critical care nurses.

Neuromuscular blocking agents (NMBAs) have been reported to cause catastrophic harm or death if inadvertently given without airway management or ventilation support (ISMP Canada, 2004, 2014, 2026). Look-alike packaging has been identified as a key contributing factor in such incidents. To reduce the risk of similar errors, survey responses from members of the Canadian Association of Critical Care Nurses (CACCN) helped inform the design of packaging for a new cisatracurium product and changes to the packaging for an existing product. This article highlights the packaging changes that have resulted in standardized presentation of cisatracurium products in Canada.

Background

NMBAs are classified as high-alert medications, which have an increased risk of causing significant harm if used in error (ISMP Canada, 2024). These medications are not more likely to be involved in incidents, but if incidents occur, they can result in severe harm.

In Canada, most NMBAs already have a red ferrule and either a red or a clear cap, with the words "Warning: Paralyzing Agent" or "Paralyzing Agent" printed on the cap or ferrule (Health Canada, 2019). An exception was a cisatracurium product manufactured by Juno Pharma Canada Inc. (previously Omega Laboratories Limited), which had a teal ferrule with a clear cap (Figure 1) (Health Canada, 2025; ISMP Canada, 2026).

Insights from Healthcare Providers

In 2024, Hikma Canada Limited requested market authorization from Health Canada for a new cisatracurium product. At that time, a determination of the most appropriate colour for the ferrule and cap was needed. A targeted questionnaire jointly developed by HealthPRO Canada and ISMP Canada, was sent to health care providers involved in the selection and/or administration of NMBAs. The questionnaire was disseminated by the Canadian Society of Healthcare-Systems Pharmacy, the Canadian Anesthesiologists' Society, and the CACCN.

Figure 1

Selected Neuromuscular Blocking Agents Available in Canada

Top row shows various products with the cap on; bottom row shows the same products with the cap off and the ferrule exposed. Photo courtesy of HealthPRO Canada.

Notably, critical care nurses accounted for over 40% of respondents. Among all respondents across all provinces, 73% of anesthesiologists, 72% of pharmacists, and 56% of critical care nurses reported that they preferred a red ferrule with a red or clear cap (Figure 2) (CACCN, 2024).

Results were shared with Health Canada to inform packaging decisions. When Hikma Canada Limited releases its cisatracurium product, it will have a red cap and ferrule (Figure 3; F. Lowe, personal communication, May 7, 2026). The results were also shared with Juno Pharma Inc., which notified Health Canada of its intention to change the teal cap and ferrule to red (Figure 4).

Figure 2

Questionnaire Results, Based on All Respondents across the Country (CJCCN, 2024)

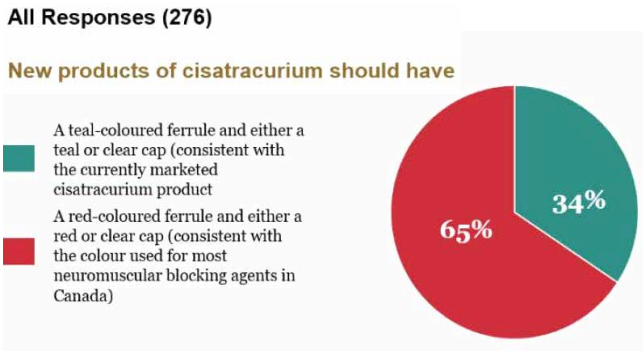

Image reproduced with permission from HealthPRO Canada and CACCN.

Figure 3

Packaging for new Hikma cisatracurium besylate injection product, not yet released, with red ferrule and cap; photo courtesy of Hikma Canada Ltd.

Figure 4

Updated packaging for Juno cisatracurium besylate injection product, with red ferrule and clear cap; photo courtesy of Juno Pharma Canada Inc.

Once these changes are implemented, all NMBAs available in Canada will have a red ferrule with a recommended warning (Health Canada, 2025). Although it is an important step in standardization, this strategy alone is not enough to prevent incidents resulting in harm. Additional system safeguards are needed to support health care providers in safely identifying and selecting NMBAs, such as bar coding and automated dispensing cabinets (ISMP Canada, 2026). Health Canada has informed health care providers of the colour changes for cisatracurium products (Health Canada, 2025).

Conclusion

The consistent use of standardized warnings and a single ferrule colour for NMBAs differentiates this class of medications from other injectable products and helps to prevent inadvertent selection and administration (ISMP Canada, 2026). This standardization supports critical care nurses and other practitioners by reducing the risk of future catastrophic events related to this class of medications.

Nurses are encouraged to report incidents and/or near misses through their respective organizational reporting processes or, in the absence of such a process, to ISMP Canada, which has a mandate to analyze data about medication incidents and disseminate lessons learned to improve medication safety. Reports can be shared anonymously at **https://www.ismp-canada.org/err_ipr.htm**

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