THE TRANSITION EXPERIENCE OF NEW GRADUATE NURSES IN THE EMERGENCY DEPARTMENT

THE TRANSITION EXPERIENCE OF NEW GRADUATE NURSES IN THE EMERGENCY DEPARTMENT

By Erica Plante, RN, BScN, MSc (student)

McMaster University, Hamilton, Ontario, Canada

A Thesis Submitted to the

School of Graduate Studies, School of Nursing, McMaster University

in Partial Fulfillment of the Requirements for the

Degree Master of Science in Nursing

McMaster University © Copyright Erica Plante, March 2024

MASTER OF SCIENCE (2023)	McMaster University
(NURSING)	Hamilton, Ontario, Canada

TITLE:	The Transition Experience of New Graduate Nurses in the Emergency Department: A Qualitative Interpretive Description Study
AUTHOR:	Erica Plante, RN, BScN, MSc (student)
SUPERVSIOR:	Dr. Pamela Baxter, RN, PhD Dr. Nancy Carter, RN, PhD School of Nursing McMaster University
NUMBER OF PAGES	173

ABSTRACT

Background: New Graduate Nurses (NGNs) face multiple learning and transition challenges as they start their careers. However, little is known about this experience in the Emergency Department (ED) setting.

Aim: The purpose of this study was to explore the experience of NGNs' transition to nursing practice in the ED, including the intrapersonal, interpersonal, and organizational factors that facilitate or hinder this process.

Methods: Guided by the Interpretive Descriptive design, this study included ten NGNs working in EDs in southwestern Ontario, Canada. Participants provided demographic information and completed individual interviews. Data from transcripts were analyzed using reflexive thematic analysis.

Findings: Four main themes were generated from this study: (1) the effects of the ED environment, (2) the introduction to practice, (3) the adaptation in practice, and (4) the evolution over time. The experiences of transition were impacted by environmental barriers, such as complex patient workloads, unpredictable patient volume and flow, and short staffing. NGNs' introduction to practice reflected the barriers and facilitators of their academic and organizational training, and support in the workplace. NGNs lacking preparedness and support for ED practice led to a perceived inability to meet practice expectations and occupational stress. NGNs adapted through interpersonal and occupational resources, workload management skills, and intrapersonal actions and behaviors. NGNs evolved by developing confidence and competence in their practice, and in their professional nursing identity.

Conclusion: Factors in the ED environment present unique challenges to NGNs' experience of transitioning into their first professional nursing role. As staffing issues in the ED persist, NGNs will continue to be hired, despite discrepancies in their practical knowledge and skills. Further education, research, and practice initiatives are needed to support the transition of NGNs to the ED setting.

ACKNOWLEDGEMENTS

This thesis has been made possible by the support of several people. To the educators at McMaster University, thank you for providing me with the knowledge and tools to complete this graduate degree and thesis study. A great amount of recognition goes to the supervisors and committee members who supported me from start to finish, through countless revisions and thoughtful feedback. Thank you, Dr. Pamela Baxter, for your guidance and attention as we embarked on this journey of curiosity and inquiry. Dr. Nancy Carter, I am incredibly grateful for your dedication to the final product as we approached the finish line. To Dr. Joanna Pierazzo and Dr. Sheila Boamah, you both provided invaluable insights and expertise that shaped this thesis along the way. Thank you all for being receptive to my enthusiasm and helping me channel it toward intelligent and usable results.

This thesis would not have been possible without the participants who shared their experiences with me. Thank you for trusting me with your time and voice, and allowing me the opportunity to share your experiences with others.

A special thank you is credited to those closest to me. To my sweet husband Joey, who never wavered as I spent long hours writing, researching, and discussing my thoughts. To my family and friends who surrounded me with support and encouragement. To my classmates and mentors, especially Paige Gehrke and Andrea Walton, for always being a phone call or message away for reassurance and wisdom.

Finally, I would like to share some gratitude to myself. As an emergency nurse, you have practiced being in a constantly active state. Pursuing a graduate degree and conducting research felt unnatural, requiring stillness and reflection. Thank you for being kind to your mind as it revolved around the universe of possibilities and brought you back to earth.

TABLE OF CONTENTS

CHAPTER ONE: INTRODUCTION 1
CHAPTER TWO: BACKGROUND 3
New Graduate Nurses in Ontario, Canada 3
Theoretical knowledge of NGN transition 5
Emergency Nursing 7
Statement of Purpose 9
Research Questions 9
CHAPTER THREE: LITERATURE REVIEW 10
Search Strategy and Results 10
Literature on NGNs in Critical Care 12
Occupational stress due to demands of the critical care environment 13
Gaining competence and confidence 14
Importance of socialization to the environment and the profession 16
CHAPTER FOUR: METHODS 20
Research design 20
Scaffolding 21
Ethics 22
Concern for welfare 23
Conflict of Interest 23
Voluntary informed consent 23
Confidentiality and Anonymity 24
Sampling & Recruitment 25
Sampling Strategies 25
Sample Size 27
Recruitment Strategies 27
Data Generation 28
Data Management 29
Data Analysis 30
Strategies to Promote Rigour and Trustworthiness 31
CHAPTER FIVE: STUDY FINDINGS 33
Demographics 33
Orientation and ED Characteristics 34
Overview of Major Findings 36

1. ED Environment 36
2. Introduction to Practice 38
Preparedness and Support for ED Practice 39
Perceived Inability to Meet High Expectations 45
Occupational Stress 47
3. Adaptation in Practice 48
Interpersonal and Occupational resources 49
Workload Management Skills 51
Intrapersonal Actions and Behaviours 53
4. Evolution over Time 55
Confidence and Competence in Practice 56
Nursing Identity 58
Recommendations for future NGNs in the ED 60
Summary of Study Findings 62
CHAPTER SIX: DISCUSSION 64
Key findings 64
ED environment 65
Introduction to Practice 67
Preparedness to practice 67
Perceived inability to meet high expectations 72
Occupational stress 74
Adaptation and Evolution over time 76
Interpersonal and Occupational resources 77
Workload Management Skills 80
Intrapersonal Actions and Behaviours 81
IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSION 84
Implications for Nursing Education 84
Academic: Placement opportunities in the ED 84
Academic: Electives for Specialty Nursing 85
Organizational: Extended orientation and preceptorship 85
Organizational: Externships 86
Implications for Clinical Practice 87
Formal and Informal Leadership 87
Preceptor support 88

Implications for Policy 88
Policies for orientation and preceptorship 89
Policies for mental health resources 89
Implications for Research 90
Limitations 91
Conclusion 94
References 96
Appendix 128
Appendix A: Search terms for NGN in ED literature search 128
Appendix B: Search terms for NGN in Critical Care literature search 131
Appendix C: Recruitment 134
Appendix C.1: Recruitment posters 134
Poster Advertisement 134
Twitter Advertisement 135
Instagram Advertisement 135
Facebook Advertisement 136
QR code scan 136
Appendix D: Participant communication 137
Appendix D.1: Email schedule 137
Appendix D.2: Email #1 – Recruitment email from Organization 138
Appendix D.3: Email #2 – Recruitment email from Researcher 140
Appendix D.4: Email #3 – Participant Eligibility Status (Eligible) 142
Appendix D.5: Email #4 – Participant Eligibility Status (Non-Eligible) 143
Appendix D.6: Email #5 – Reminder email 144
Appendix D.7: Study Information and Consent document 145
Appendix D.8: Interview Questions document 149
Appendix D.9: How to download Zoom document provided to participants (Email #3) 150
Appendix E: Data Generation 151
Appendix E.1: NGNs in the ED: Demographic and Transition Experience Questionnaire. 151
Appendix E.2: Participant Information and Compensation Log 156
Appendix E.3: Researcher Semi-Structured Interview Guide 157
Appendix E.4: Field Note Template 160
Appendix F: Data Management 161
Appendix F.1: Online Platforms used for NGNs in the ED study 161

Appendix G: Data Analysis documents 162
Appendix G.1: Transcriptionist Confidentiality form. 162
Appendix H: Ethics 163
Appendix H.1: Participant distress protocol. 163

CHAPTER ONE: INTRODUCTION

As the newest members of the nursing workforce, New Graduate Nurses (NGNs) are educated practitioners who can provide safe and ethical care to patients of all ages. The potential career path for NGNs within the nursing profession is diverse, allowing choice from a wide range of practice areas in which to focus their interests. For nearly two decades, researchers have identified and discussed factors that influence this impactful period of transition from nursing student to licensed practitioner. Many studies describe strategies to aid NGNs' transition to practice (Ackerson & Stiles, 2018; Rush et al., 2019; Van Camp & Chappy, 2017), mostly in response to the persistent challenges that impact NGNs' well-being, quality of patient care, and desire to continue practicing early in their careers (Duchscher, 2008; Spence Laschinger et al., 2016, 2019). For example, multiple studies in the United States (US) and Canada have described NGNs' negative experiences during transition that contributed to job dissatisfaction, burnout, and attrition (Beecroft et al., 2008; Cho et al., 2006; Larrabee et al., 2003; Scott et al., 2008). Similarly, a descriptive cross-sectional study of NGNs (*n*=428) in Turkey found that 42.5% of their NGN sample considered leaving the nursing profession entirely (Ulupinar & Aydogan, 2021). Novice nurses face numerous challenges early in their careers, which threatens their tenure and satisfaction in the profession.

Less is known about the experience of NGN transition to practice in the context of the Emergency Department (ED). Many studies on the NGN transition experience are generalized to all care areas or emphasize other specialty areas. Traditionally, NGNs are not hired to critical care areas such as the ED because of the critically ill patients and unpredictable work environments (Reddish & Kaplan, 2007). However, consistent strain on the critical care workforce has prompted an increase of NGNs filling ED staffing vacancies (Baumberger-Henry,

2012; McDermid et al., 2020; National Emergency Nurses Association, 2018; Sawatzky & Enns, 2012). The staffing issues seen in EDs impact quality patient care metrics, such as increasing patients leaving without being seen, care time, and decreasing patient satisfaction (Ramsey et al., 2018; Recio-Saucedo et al., 2015). As a result, North American critical care areas have become the second most common practice area for NGNs to begin their careers (National Council of State Boards of Nursing, Inc., 2022). In 2017, 12.9% of Canadian NGNs and 23.3% of American NGNs started their careers in critical care after graduation, which is an increase from 10.1% and 18.7% in the 2014 survey (National Council of State Boards of Nursing, Inc., 2018). To support NGNs transitioning to practice in such a challenging work setting, a better understanding of this experience in the ED is needed.

This study explored the transition experiences of NGNs in Ontario, Canada as they started their careers in the ED, including the intrapersonal, interpersonal, and organizational factors that impacted their clinical practice. The insights gained from this study have the potential to inform future educational and clinical initiatives, specifically targeting the challenges novice nurses face in this area of practice. Efforts to improve the transition of NGNs in the ED will allow them to meet the needs of highly acute and complex patients, provide safe and high-quality care, and foster a healthy emergency nursing workforce.

CHAPTER TWO: BACKGROUND

Overview of Chapter

This chapter describes the relevant background information on NGNs' experience of transition to emergency practice that situates this study. These include the definition of a NGN in Ontario, Canada, the theoretical knowledge of the phenomena in question, and the emergency nursing standards and responsibilities within this context. This chapter outlines the statement of purpose and the research questions that guided the inquiry.

New Graduate Nurses in Ontario, Canada

In Canada, Registered Nurses (RNs) are governed by their provincial or territorial regulatory body, college, or association (Almost, 2021). Except for the province of Quebec, RNs in Canada must first graduate with a baccalaureate degree from an approved nursing program (Almost, 2021). Prospective nurses must then pass the national exam and register with the regulatory body of the province or territory in which they will be practicing (Almost, 2021). The College of Nurses of Ontario (CNO) regulates the requirements and standards needed to practice as an RN in Ontario (College of Nurses of Ontario, 2012).

NGNs in Ontario are RNs who are entering professional nursing practice for the first time (Baumann et al., 2009; Ministry of Health and Long-Term Care, 2021a). The CNO outlines Entry-to-Practice (ETP) competencies that guide the education and practice of RNs new to the profession. These ETP competencies stipulate that NGNs graduate as generalist practitioners. In other words, NGNs are educated to practice safely and ethically using evidence-informed practice, with people of all ages in situations of health and illness, across a variety of practice

areas (Almost, 2021; College of Nurses of Ontario, 2018). In this study, NGNs are defined as RNs with no prior nursing or medical professional background.

Currently, there is no formal tracking at the provincial level that reports where NGNs decide to begin their nursing careers (College of Nurses of Ontario, personal communication, Dec 2021). In a survey of entry-level RNs who successfully passed the licensing exam (NCLEX-RN) across 10 Canadian regulatory bodies, 79.6% of respondents reported starting their careers in hospitals, 60.8% of whom were in urban/metropolitan areas (National Council of State Boards of Nursing, Inc., 2022). In Ontario, hospitals are the largest employer of RNs (Registered Nurses' Association of Ontario, 2019). In 2020, 65.5% of Ontario RNs worked in hospitals, compared to the 15.7% who worked in community health and 8% in long-term care and nursing homes (Canadian Institute for Health Information, 2021).

Within the literature on NGN transition to practice, the length of time in which nurses are considered new graduates lacks consistency (Cho et al., 2006; Hawkins et al., 2019). Some studies focus on the NGN experience of transition within their first year of practice (Missen et al., 2016; Pfaff et al., 2014; Thompson et al., 2010; Walker et al., 2016), while others describe an NGN as having less than three years of clinical experience (Carnesten et al., 2022, 2023; Serafin et al., 2021). Many studies evaluate the first year of an NGNs' progress as they participate in transition programs (Altier & Krsek, 2006; Fink et al., 2008; Krugman et al., 2006; Williams et al., 2007). Finally, theoretical knowledge of NGN transition focuses on the experience throughout their first year of practice (Benner, 1984; Duchscher, 2008). For the purposes of this study, the experiences of NGNs' first year of transition to practice in the ED will be the focus.

Theoretical knowledge of NGN transition

The concept of "transition" is frequently used in healthcare literature and has varying meanings depending on the context in which it is used (Kralik et al., 2006). The consensus among health disciplines is that transition is a process and an outcome recognizing a "passage of change" (Kralik et al., 2006 p. 323). Regarding the NGN, the concept of transition has been theorized for many years. Dr. Marlene Kramer (1974) initially coined the experience of NGN transition from academia to professional practice as a "Reality Shock." Dr. Patricia Benner (1984) established a theory that describes the development of nurses through skill acquisition as they progress from novice to expert practitioners. The theoretical knowledge gathered by Kramer and Benner influenced Dr. Judy Duchscher's (2008) work towards the theory of Transition Shock (Graf et al., 2020). The theory of Transition Shock describes the experience of moving from a student to a professionally practicing nurse (Duchscher, 2008, 2009). According to Duchscher's decade of work in the field, the theory suggests that as NGNs experience a change in roles, responsibilities, relationships, and knowledge, the shock of transition is expressed intellectually (e.g., apprehension toward accepting full responsibility for patient care), physically (e.g., adjusting to shift work), emotionally (e.g., isolation and self-doubt), and socio-culturally (e.g., sense of belonging) (Duchscher, 2009). The NGNs' experience progresses through three stages during the first twelve months of practice: *doing, being,* and *knowing* (Duchscher, 2008; 2009).

Duchscher's (2008) theory of Transition Shock begins with the *doing* stage (first 3 to 4 months), where NGNs experience a steep learning curve as they grapple with an unfamiliar environment and self-perceived incompetence. The theory posits that NGNs in this stage feel unprepared for the level of responsibility and workload they are given as novice practitioners,

leading to high levels of stress and anxiety (Duchscher & Windey, 2018). At this stage, NGNs are task-focused, requiring prescriptive direction from coworkers and superiors. To conceal their inadequacies and avoid drawing attention to themselves from their colleagues, NGNs in the *doing* stage focus on completing tasks correctly and fitting into the workplace structure. The narrow focus on task completion and skill advancement prevents the recognition of situations that require in-depth analysis, problem-solving, and critical thinking (Duchscher & Painter, 2021). In addition, NGNs are attempting to develop a routine outside of academia, such as working night shifts and long hours (Duchscher, 2008; Duchscher & Windey, 2018).

The *being* stage (4 to 9 months) of Duchscher's (2008) theory of Transition Shock is when NGNs' knowledge and skill competency accelerates, establishing control of their professional capabilities (Duchscher & Windey, 2018). However, NGNs are exhausted from the relentless adjusting and learning from the previous stage, seeking familiarity and consistency in and out of the workplace. Instead of prescriptive direction, NGNs are more confident in their nursing role and responsibilities, desiring "clarification and confirmation of their thoughts and actions" from their colleagues (Duchscher, 2008, p. 446). In this stage, NGNs use less energy to work through their anxieties and perceived incompetence, shifting their focus towards examining the challenges they face as professional nurses. Consequently, Duchscher's theory suggests that a greater awareness of their environment can lead to NGNs feeling frustrated, disappointed, and powerless concerning the challenges within their unit and healthcare system. At this delicate stage of their transition journey, NGNs strive to realign with their personal and professional aspirations that were pushed aside during the initial stage of transition (Duchscher & Windey, 2018). After several months, NGNs are ready to tackle new challenges with a clearer idea of themselves in and out of their professional role (Duchscher, 2008).

In the final *knowing* stage (9 to 12 months) of Duchscher's (2008) theory of Transition Shock, NGNs have gained enough experience and skill competency to be contributing coworkers to the nursing team. NGNs' confidence and comfort in practice stabilizes as they reflect on their progress since entering the workplace. NGNs spend less time and energy on questioning their practice, and more on answering questions and helping others with the workload. At this stage, NGNs are searching for a personalized professional identity that differentiates them from their coworkers (Duchscher & Windey, 2018). Continuing from the previous *being* stage, a greater awareness of workplace inadequacies and confidence in their autonomy can perpetuate further dissatisfaction with the healthcare system at large, such as lack of support, shift work, or lack of seniority to book off holidays (Graf et al., 2020). The resulting powerlessness and need for work-life balance from the previous stage persists through to this *knowing* stage, as NGNs continue to look for fulfillment and momentum for personal and professional aspirations outside of their bedside role. At this point, senior colleagues are crucial in helping NGNs find meaning in their nursing roles and in retaining them in the workplace (Duchscher, 2008; Duchscher & Windey, 2018).

The theoretical knowledge shared by Kramer, Benner, and Duchscher provided important insights into the general experience of a NGNs' transition, but does not specify area of practice. The goal of the study was not to apply the findings to the theories, but to provide new knowledge of this experience specific to ED NGNs.

Emergency Nursing

The work environment of the ED is unique and patients requiring emergency medical services arrive in unpredictable volumes and conditions. Patients can require resuscitative treatments for traumatic injuries, cardiac events, or septic shock, as well as non-urgent

interventions, such as prescription refills, suture removal, or referrals to specialists. A team of medical professionals, including but not limited to physicians, nurses, diagnostic imaging technicians, and respiratory therapists, collaborate closely to assess, investigate, diagnose, and treat patients' new and urgent medical concerns. As patients requiring emergency medicine can be in critical condition, the ED is considered a critical care unit. To work in this capacity, RNs in the ED require a broad range of advanced medical and procedural knowledge and diligent prioritization skills. This knowledge is acquired through specialized certifications and training beyond ETP baccalaureate education (Jones et al., 2015). In Canada, ED nurses require additional certifications such as Advanced Cardiac Life Support, Pediatric Advanced Life Support, and Trauma Nursing Core Courses (Jones et al., 2015; National Emergency Nurses Association, 2018; Proehl, 2002). Furthermore, hospital administrators prefer nurses with at least two years of experience in another nursing area due to the advanced scope and standards of emergency nursing practice (National Emergency Nurses Association, 2018). The prior experience in an acute care unit is intended to give newer RNs basic nursing knowledge and skills before adapting to the fast-paced ED environment (Farnell & Dawson, 2006).

The current nursing shortage has resulted in NGNs being offered first employment in the ED despite the known challenges of transition, their generalist preparation, and the complexity of patient care in this environment. New graduates are attracted to ED nursing for its dynamic environment that promotes continuous learning and professional development (Cronin & Cronin, 2006; Halcomb et al., 2012). Additionally, ED nursing exposes NGNs to a variety of patient and medical situations to develop a broad knowledge of many different ailments (Cronin & Cronin, 2006; Halcomb et al., 2012).

Statement of Purpose

The purpose of this study was to explore the transition experience of NGNs who start their nursing careers in the ED. This was accomplished using qualitative methods that highlighted the experience of NGNs in this context. Data generated from this study may be used to inform initiatives aimed at supporting the NGNs through transition to practice, thereby reducing the attrition of NGNs from the ED, and contributing to a strong ED workforce.

Research Questions

The primary research question that guided this study was: What is the experience of NGNs who transition to nursing practice in EDs in southwestern Ontario urban hospitals? The secondary question was: What intrapersonal, interpersonal, and organizational factors influence NGNs' experiences of transition in the ED?

CHAPTER THREE: LITERATURE REVIEW

Overview of Chapter

This chapter details the search strategy and overview of current and relevant literature on the NGNs' experience of transition to nursing practice in the ED and other critical care areas. The studies were reviewed and synthesized for the purpose of this thesis.

Search Strategy and Results

A broad search of systematic reviews on NGN transition to nursing practice in the critical care settings introduced the researcher to the relevant search terms used in this literature review (Crilly et al., 2019; Innes & Calleja, 2018; Wakefield et al., 2023; Whitson, 2011). In consultation with librarians at McMaster University, the researcher compiled a list of valid search terms for each electronic database (Appendix A and B). Table 1 outlines the four steps taken to review the literature on NGN transition to nursing practice in the ED. First, the search terms were used in the following electronic databases: Cumulative Index to Nursing and Allied

Table 1

Steps of literature search

Step 1	Search CINAHL, PubMed, and Ovid MEDLINE with appropriate search terms (outlined in Appendix A and B)
Step 2	Review titles and abstracts for inclusion and exclusion criteria Inclusion: - Qualitative, quantitative, or mixed methods - Written in English - Report on NGNs experience of transitioning to professional nursing practice through the ED and critical care areas. Exclusion - Evaluating specialized orientation programs - Focused solely on pediatric/neonatal settings
Step 3	Read all included studies in full for inclusion and exclusion criteria
Step 4	Review reference lists of included studies and Google Scholar for relevant literature.

Health Literature (CINAHL), PubMed, and Ovid MEDLINE. These databases were chosen based on their ability to provide nursing-focused literature on the phenomena of interest (Allen et al., 2006; Alpi, 2006). The CINAHL database is a primary source for nursing and allied health literature (Allison, 2006). Searches in CINAHL produce literature that focuses on the nursing profession, while Ovid MEDLINE provides a wider variety of literature in the field of health sciences (Brazier & Begley, 1996). PubMed is an interface for searching MEDLINE articles and biomedical literature (Katcher, 2006). Second, titles and abstracts of the articles that resulted from the initial search were reviewed for inclusion and exclusion criteria. Research articles that were included in the literature review were (1) literature reviews, and qualitative, quantitative, or mixed methods studies, (2) written in English, (3) that reported on NGNs (4) experience of transition to nursing practice (5) in the ED. Studies were excluded if they evaluated specialized orientation programs in the ED (e.g., residency program, transition internship, educational seminar, etc.) or focused on the NGNs experience in pediatric/neonatal practice areas. Third, the researcher read the included articles in full to further revise for inclusion and exclusion criteria. Finally, the reference lists of the included literature were searched for additional sources. Google Scholar was searched for more sources using a combination of applicable search terms. Librarians at McMaster University confirmed that the appropriate steps were taken for an in-depth literature review.

The literature search of the NGN transition experience in the ED produced seven scholarly articles (see Appendix A, table A.4). The search included a literature review (Valdez, 2008), two quantitative descriptive studies (Aydogan & Ulupinar, 2020; Salonen et al., 2007), and five qualitative studies (Carnesten et al., 2022, 2023; Duchscher & Painter, 2021; García-Martín et al., 2021). Many studies from the search were excluded as they focused on the

evaluation of orientation, educational, simulation, or residency programs. The included articles were unable to provide a comprehensive perspective of the NGN experience of transition in the ED. Studies on the NGN experience of transition in the ED were absent in the literature review by Valdez (2008). Both quantitative studies included in the search sampled NGNs from both EDs and ICUs (Aydogan & Ulupinar, 2020; Salonen et al., 2007). Duchscher & Painter's (2021) interpretive description study was able to provide valuable qualitative findings, however only included four NGNs in their sample. Furthermore, the more recent qualitative studies focused on NGN transition to the ED in circumstances specific to the COVID-19 pandemic (Carnesten et al., 2022, 2023; García-Martín et al., 2021). As the ED is considered a critical care area, the literature search was expanded to include research that explored the NGN transition to nursing practice in critical care units (see Appendix B). Critical care units in the search included EDs, Intensive Care Units (ICU), Cardiac Care Units, Recovery Units, and Specialty Units (excluding neonatal or pediatric intensive care units) (Innes & Calleja, 2018; Whitson, 2011). Following the same steps, the expanded search resulted in the inclusion of 34 articles (see Appendix B, table B.4). Of the 34 articles, four were Canadian (Duchscher & Painter, 2021; Lalonde et al., 2021; Thompson et al., 2010; Vanderspank-Wright et al., 2019).

Literature on NGNs in Critical Care

The literature on the experience of NGNs' transition through critical care environments emphasizes the following experiences: developing occupational stress due to demands of the critical care environment; gaining competence and confidence; and becoming socialized to the environment and the profession.

Occupational stress due to demands of the critical care environment

A total of nineteen articles, four of which were Canadian, described incidences of occupational stress among NGNs due to the nursing demands of the critical care environment. In critical care environments, patients can be suffering from life-threatening conditions, requiring continuous nursing assessments, complex interventions, and rapid response to ever-changing circumstances (Canadian Association of Critical Care Nurses, 2017; Meghani & Sajwani, 2013). Having been trained as generalist, NGNs who start their careers in the critical care setting are witnessing and practicing aspects of their careers for the first time in highly acute environments. In two qualitative systematic reviews, NGNs were required to make rapid decisions related to patient care in situations they had not yet personally practiced (Elias & Day, 2020; Wakefield et al., 2023). For example, NGNs' critical thinking and time management skills were challenged in situations involving ethical dilemmas and death and dying (Carnesten et al., 2023; Silva & Ferreira, 2011; Thompson et al., 2010). In addition to the medical complexity of these patients, NGNs in various studies commented on the technological competency needed to confidently practice in this environment (Crilly et al., 2019; Silva & Ferreira, 2011). A Canadian longitudinal mixed-methods study by Lalonde and colleagues (2021) indicated that NGNs in the ICU felt uncomfortable working with complex technological equipment well beyond their first year of practice.

As a result of the high demands of the critical care environments and inexperience in nursing practice, NGNs from various studies describe developing occupational stress. Critical care NGNs (n=209) from a quantitative descriptive cross-sectional study conducted in Jordan by Darawad and colleagues (2022) rated critical care workload and patient complexity as the primary contributor to occupational stress. This same study analyzed the impact of NGNs'

occupational stress on caring performance, which is defined as the nurse's ability to manage resources towards effective interventions that address patients' health conditions. They found that NGNs' caring performance was negatively impacted by increased workload ($p < .05$), difficult patient situations ($p < .01$), and professional self-doubt ($p < .01$). Combined with highly complex workloads, NGNs struggled with increased occupational stress as they were consistently learning through first experiences and contending with their inexperience (Carnesten et al., 2022, 2023; DeGrande et al., 2018; Feddeh & Darawad, 2020; Vanderspank-Wright et al., 2019).

Findings from this literature review suggest NGNs manage their occupational stress in a variety of ways. Using qualitative methods, researchers found that NGNs focused on mastering task-oriented achievements to combat their perceived inadequacy, such as intravenous insertions, head-to-toe assessments, technological devices, and completing documentation (Duchscher & Painter, 2021; O'Kane, 2012; Vanderspank-Wright et al., 2019). Task orientation can lead to disengagement from the patient. New Graduate Nurses (n=4) and senior nurses (n=5) in the ED from Duchscher and Painter's (2021) qualitative interpretive description study in Alberta, Canada identified that striving for competence in skills and technology drew NGNs away from applying fundamental therapeutic skills to patient care, such as empathy, compassion, communication, and emotional support. Similarly, a qualitative evidence synthesis by Crilly and colleagues (2019) noted a reliance on technology can dehumanize nursing care, further distancing new nurses from what they expected of their nursing roles and responsibilities.

Gaining competence and confidence

A total of twenty studies, two of which were Canadian, outlined the NGNs process of gaining competence and confidence in their critical care practice during transition. Competency

in nursing is described as utilizing actions or behaviors to effectively and ethically fulfill professional responsibilities (Fukada, 2018; Scott Tilley, 2008). Those actions and behaviours include, but are not limited to clinical knowledge and judgement, nursing skills, experience, attitudes, and values (Fukada, 2019; Scott Tilley, 2008). Consistently, study findings show a lack in confidence being related to NGNs' perceptions of the discrepancies between what was taught in school about nursing expectations, and the realities of clinical practice (DeGrande et al., 2018; Lalonde et al., 2021). As described by NGNs (*n*=11) in the ICU from DeGrande and colleagues' (2018) phenomenological study conducted in the US, gaining competence in critical care is a difficult and stressful process, because of first clinical experiences with highly acute patient conditions. This was similar to findings in a mixed-methods study by Mollerup and Mortensen (2004) conducted in an ICU in Denmark, where 81% of NGNs (*n*=26) reported working outside of their perceived level of competence.

Researchers suggest that NGNs require time and experience with critical care patients and in high acuity settings (DeGrande et al., 2018; Lalonde et al., 2021; Serafin et al., 2021; Wakefield et al., 2023). With experience, NGNs in various studies became competent in using technology, understanding its importance as an adjunct to caring for patients (Crilly et al., 2019; Crocker & Timmons, 2009; McGrath, 2008). As identified by Lalonde and colleagues (2021), NGNs' self-rated confidence and comfort gradually increased overtime while their clinical learning and patient experiences became more dynamic and complex. With time and experience, NGNs from the DeGrande and colleagues' (2018) study became "comfortable with being uncomfortable" (p.76). In other words, NGNs developed confidence and comfort with their knowledge and skills, while simultaneously open to the uncertainty that comes with caring for patients in life-threatening situations. It should be noted that a quantitative study conducted in

Finland found differences in self-assessed competency categories between NGNs (n=235) in ICUs and EDs (Salonen et al., 2007). NGNs in the ICU rated themselves highest in the Helping Role competency, while the Helping Role, Therapeutic Interventions, and Ensuring Quality competencies were rated lowest among ED NGNs. However, NGNs in the ED rated themselves highest in the Managing Situations competency (Salonen et al., 2007). These findings highlight a difference in experience between NGNs transitioning to nursing practice in the ED compared to other inpatient critical care areas.

Importance of socialization to the environment and the profession

A total of sixteen studies, three of which were Canadian, discussed the impact of socialization on NGNs during their transition in the critical care environment. Socialization is the process of adopting and adhering to professional, behavioural, and social norms that allow people to be contributing members of their society (Boyle et al., 1996; Leathart, 1994; Reising, 2002). In relation to NGNs transition to practice, socialization is required to both the practice setting and the nursing profession. Socialization shapes NGNs' professional identity as they learn, interact, develop, and adapt to the workplace and to themselves as nurses (Dinmohammadi et al., 2013; Mooney, 2007; Rasmussen et al., 2018). Developing professional identity is the process of finding a sense of self in relation to those around you, influenced by the "characteristics, norms, and values of the nursing discipline" (Godfrey & Young, 2020, p. 363). Therefore, NGNs becoming more competent and confident in their practice contributes to their overall development of professional identity. This was observed in the interpretive description study by Vanderspank-Wright and colleagues (2019), where NGNs in a Canadian ICU noted developing confidence in practice contributed to their evolving nursing identity.

An important feature of socialization in nursing includes the interactions in the environment and collaborations with coworkers (Dinmohammadi et al., 2013; Saghafi et al., 2012). In various qualitative studies, NGNs reported communicating with physicians and senior nurses as intimidating, fearing alienation from their new community (Lewis-Pierre et al., 2014; Saghafi et al., 2012; Vanderspank-Wright et al., 2019). In Saghafi and colleagues' (2012) phenomenological study of NGNs' (*n*=10) experience of interaction in an Australian ICU, participants refrained from communicating with patients and families to evade the topic of their inexperience and avoid potential mistrust in the care being provided. Similar findings were reported by the participants in Duchscher & Painter's (2021) study, where they avoided situations where their opinions or questions would reveal their perceived incompetence. Other researchers reported NGNs looking to coworkers who were approachable and trustworthy in various situations (Carnesten et al., 2022; Saghafi et al., 2012). For NGNs in Vanderspank-Wright and colleagues' (2019) study, interactions with coworkers started out as a necessity to complete tasks, and evolved to nurturing a sense of belonging within the workplace. As trust was established among coworkers, NGNs became more comfortable with openly acknowledging their inexperience, which encouraged a supportive learning environment and an opportunity to receive in-depth explanations on clinical matters (Saghafi et al, 2012).

A review of best practice guidelines that support NGN transition to practice found strategies that encourage positive socialization to the workplace enhances NGNs' confidence and acceptance of their nursing role and responsibilities (van Rooyen et al., 2018). An integrative review of transition programs highlights improved knowledge and skill acquisition through structured orientation initiatives, such as residency programs, simulation based learning, and individualized learning plans (Rush et al., 2019). Orientation programs have shown success in

socializing NGNs to critical care practice (Baldwin et al., 2021; Carnesten et al., 2022; DeGrande et al., 2018; Gorman & McDowell, 2018; Innes & Calleja, 2018). However, standardization of on-boarding practices is difficult, as approaches to orientation vary widely based on organization, funding, and staff availability.

Multiple studies highlight examples of supportive workplace environments that facilitated NGNs' confidence, exposure to practice, and managing stressful situations (DeGrande et al., 2018; Hussein et al., 2017; Lalonde et al., 2021; McKenna & Newton, 2008; Saghafi et al., 2012; Serafin et al., 2021; Vanderspank-Wright et al., 2019). Designated support persons, such as preceptors and mentors, are typically assigned to NGNs through preceptorships and mentorships, which are the most common feature of transition programs (DeGrande et al., 2018; Innes & Calleja, 2018; Rush et al., 2019; Theisen & Sandau, 2013). A preceptor is an experienced nurse whose role is to orient novice practitioners to a clinical area for a defined period, while a mentor is an experienced nurse who enters a collaborative partnership with a newer nurse to provide personal and professional support beyond orientation to the unit (Baxter, 2010; Dirks, 2021). Mentorships can be formally organized by the institution or informally created through personal relationships (Baxter, 2010; Dirks, 2021). Evidence from multiple sources credits preceptors and mentors on facilitating NGNs' competence in communication, patient care, organization, time management, and professional conflict resolution (Adams et al., 2015; Ke et al., 2017; Serafin et al., 2021; Theisen & Sandau, 2013). The literature suggests that the quality and availability of designated support persons can substantially impact the NGNs' experience (O'Kane, 2012; Rush et al., 2019; Tracey & McGowan, 2015). Intensive Care Unit Preceptors (n=7) from England in O'Kane's (2012) comparative qualitative description study were hesitant to reduce the amount of support they provided, which impacted the confidence

NGNs had in their autonomous practice. Widespread absenteeism and turnover of experienced nurses in the ED prevents NGNs from accessing this vital source of support and knowledge (McDermid et al., 2020).

This literature review focused on the experience of NGNs who transition to nursing practice through critical care areas. The findings highlighted the effects of the highly acute environment on NGNs developing occupational stress, the journey toward gaining competence and confidence through practice, and the importance of socialization to the environment and the profession. Being educated as generalist practitioners, NGNs who began their careers in critical care environments report feeling unprepared for the high demands of the patient conditions and complex interventions. Time and exposure to patient situations and technology improved NGNs' competence and confidence in their practice. In addition, socialization through orientation and supportive team environments was crucial in facilitating transition from academic to critical care environments and developing a professional identity as nurses. However, the majority of the studies in this review were conducted in ICUs or combined results from the EDs with other critical care areas. From the 34 studies, only seven focused solely on NGNs in the ED. The context of the ED varies significantly from other work environments in hospitals. The experiences of ED NGNs are unique and include unpredictable volumes and patient populations, rapid critical thinking, and a range of clinical skills (Duchscher & Painter, 2021; Valdez, 2008). Hiring of NGNs to the ED will continue as hospitals address the impact of low retention and high turnover of nurses. Therefore, this study aimed to develop an understanding of the experience of NGNs working in EDs as they transition to nursing practice.

CHAPTER FOUR: METHODS

Overview of Chapter

This chapter describes the qualitative research design used to conduct this study, including the rationale for its use. In addition, this chapter explains the study's ethical considerations, sampling and recruitment strategies, study setting, data generation, management, and analysis. Strategies that promoted trustworthiness and rigour will be specified.

Research design

An interpretive description (ID) qualitative design was employed to explore the research question of NGNs' experience in the ED (Thorne, 2016). This approach is often used by clinicians to answer questions that are applicable in practice settings and contribute to disciplinary knowledge. ID encourages the application of methods borrowed from other qualitative designs to tailor the inquiry toward effectively answering the research question (Thorne, 2016). By justifying the use of chosen methods in a coherent manner, the researcher can enhance the credibility and rigour of the findings (Thorne, 2016). The ID design aims to answer research questions that will bring solutions to clinical practice settings (Thorne, 2016). As nursing is a discipline informed by human experiences, patterns, and themes, collecting data through qualitative research can foster improvements to the way nurses practice in unique and individual circumstances (Thorne, 2016).

ID accepts the researchers' disciplinary background to inform the research inquiry, including the research question, sampling strategies, data generation methods, and interpretations (Kalu, 2019; Thorne, 2016; 2020). To address the impact of the researchers' personal biases and positionality within the phenomena of interest, they are encouraged to practice reflexively

throughout all steps of the research process (Thorne, 2016). Reflexivity is to acknowledge one's position actively and explicitly within the topic of interest, such as one's social background, personal experience, theoretical viewpoints, and context within the research process (Berger, 2015; Parson, 2019). As per Thorne (2016), reflexivity upholds the researchers' position as the "curious learner" by interrogating their personal and professional influences throughout the study (p. 140). Practicing research reflexively allows the participants' exploration of experiences to direct the study narrative (Thorne, 2016).

Scaffolding

In line with the chosen qualitative design, scaffolding outlines the foundational theoretical and personal knowledge that informed the researchers' positionality throughout the study (Thorne, 2016). Positionality consists of "how our background and experiences play a role in our relationship with participants and in how we carry out research" (Call-Cummings & Ross, 2019, p. 4). The researchers' foundational knowledge was demonstrated through the literature review, and the following positionality statement outlines their personal and theoretical stance on the research topic (Thorne, 2016). The purpose of this section is to provide information on the researcher as the primary interpreter of the data generated in this study.

As the primary researcher of this study, I am an RN who is currently practicing in the ED setting. Almost a decade ago, I started my nursing career in the ED as a NGN. I had the privilege of transitioning to practice by participating in a Nursing Graduate Guarantee initiative facilitated by the Government of Ontario. Through this initiative, I received six months of precepted training, which contributed to a successful transition experience. Further along in my career, I have put myself in the position of being the "new nurse" as I travelled to multiple hospitals across the country to fill staffing vacancies. In addition, I have been a preceptor to NGNs

orienting to the various EDs I have worked. Before enrolling in graduate school, I witnessed NGNs who started their careers in the ED become mentally, emotionally, and intellectually overwhelmed with the practice area and subsequently leaving for other units. It is with this experience that I started questioning my own NGN experience, how I was able to continue practicing in the ED, and what the experience was like for others. As my experience of transitioning to nursing practice was several years ago, this study intended to gain insight from NGNs who had recently transitioned to nursing practice through the ED, in hopes of producing impactful and up-to-date recommendations for practice.

In my current role as a master's student, I have taken courses on how to conduct rigorous and ethical research. In addition, I have been guided through the research process by a committee of expert researchers at McMaster University. My professional experience along with my position as a novice researcher requires continuous interrogation through reflexivity. To produce results that objectively reflect the participants' experience of NGN transition, I have practiced reflexivity through journaling, an audit trail, memo writing, and annotations throughout the research process (Pillow, 2010).

Ethics

This study was conducted according to the principles set out in the Tri-Council Policy Statement: Ethical Conduct for Research involving Humans (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council [CIHR, NSERCC, SSHRC], 2018). The researcher received ethics approval from the Hamilton Integrated Research Ethics Board (HiREB #14532). Specific ethical considerations were addressed concerning the potential concern for welfare, conflict of interest, participant voluntary consent, and confidentiality and anonymity.

Concern for welfare

Previous literature has reported NGNs experiencing adverse events in the workplace, such as horizontal bullying from coworkers and peers, and verbal and physical violence from patients and families (Copeland & Henry, 2017; Hogarth et al., 2016; Laschinger et al., 2010, 2013; Rosi et al., 2020; Vogelpohl et al., 2013). A distress protocol adapted from Draucker and colleagues (2009) was created and implemented as recalling these experiences during an interview could have been emotionally and mentally distressing to participants, (Appendix G).

Conflict of Interest

Consistent with Article 7.4 of the Tri-Council policy (CIHR, NSERCC, SSHRC, 2018), the first step to managing a conflict of interest is identifying any real, potential, or perceived conflicts of interest. A potential conflict of interest was related to the researcher's employment as an RN in the same hospital as some of the participants. Throughout the study, the researcher worked minimal hours in pursuit of their master's degree. Nevertheless, there was a risk that colleagues of the researcher became participants in this study. This presented a potential power imbalance, as the researcher is considered an experienced nurse and would be the primary interviewer of the participants who were novice nurses. The researchers' position as an RN was made explicitly clear to the participants during the consent process, both in writing and repeated verbally before the interview. No concerns were expressed regarding some participants being colleagues of the researcher.

Voluntary informed consent

The researcher ensured that the consent of the participants was voluntary, informed, and ongoing from recruitment to the end of their participation in the study (CIHR, NSERCC,

SSHRC, 2018). Participants who expressed interest in the study contacted the researcher voluntarily through the information provided in the various recruitment strategies. The researcher was responsible for ensuring that consent was informed by detailing the participants' involvement in the research in terms they understood (Sanjari et al., 2014). Participants could reference *The Study Information and Consent* document (Appendix D.7), which included all the information needed for participants to make a fully voluntary and informed decision (Sanjari et al., 2014). Participants were encouraged to ask questions or communicate concerns about the research by email or verbally before and during the interview. Upon starting the interview, participants were reminded that they did not have to answer any questions that made them uncomfortable and that the option to withdraw from participating in the study was available at any time.

As a token of appreciation, each participant received a $20 electronic honorarium for Indigo, Walmart, or Tim Hortons. Formal guidance on the appropriate amount of financial incentive for participation in nursing research is lacking. The chosen amount was to incentivise participants' involvement and show gratitude for the time given to the research study, without compromising on voluntariness or coercing into ongoing consent.

Confidentiality and Anonymity

Various measures were taken to maintain participants' confidentiality and anonymity. Upon participant recruitment and prior to consent, the *Study Information and Consent* document outlined the process of de-identification and information sharing (Appendix D.7). Participants were assigned a unique study ID code which was used in all files associated with that participant, including the questionnaire, transcripts, fieldnotes, memos, and the final report. Participants' name and associated study ID codes were documented in a single password-protected file

(Appendix E.2). Audio files from the interviews were securely shared with a transcriptionist and the researcher's academic supervisor for learning and teaching purposes. The transcriptionist signed a statement of confidentiality (Appendix F.1). As the video recordings of the interviews would breach anonymity, the files containing the video recordings were destroyed immediately after the interview.

Sampling & Recruitment

Sampling Strategies

Various sampling techniques were used to gain an in-depth perspective of the phenomena in question. The target population for this study were RNs who had experienced their first year of professional nursing in the ED between January 2020-2022. Sampling started with purposeful criterion sampling, progressed through data generation and analysis with theoretical sampling to promote maximum variation, and concluded with snowball sampling (Thorne, 2016).

Purposeful criterion sampling was used to identify individuals with a perspective of the NGN transition to practice in the ED (Thorne, 2016). Criterion sampling is a type of purposive sampling that seeks participants with specific characteristics (Creswell & Poth, 2016). For this study, criteria for participation included NGNs who were: (1) RNs, (2) working full-time (approximately 75 hours per pay period) or part-time (22.5-45 hours per pay period) for a minimum of three months, (3) working in the ED, (4) as their first professional nursing position after graduating from their nursing degrees, and (5) spoke and understood English. Participants were excluded if (1) their NGN experience in the ED started before January 2020, (2) they had previous professional healthcare experience (i.e., Paramedic, Registered Practical Nurse, or Personal Support Worker), and (3) participated in a specialized transition program. For this

study, a specialized transition program was any orientation or preceptorship that was above and beyond what was provided to a new staff member in the ED. In other words, NGNs that participated in this study received the same amount of orientation and preceptorship that any new nurses without ED experience received upon starting RN employment in the respective EDs included in this study.

Theoretical sampling introduces phenomenal or demographic variation that challenges the emerging patterns and themes, also known as maximum variation (Creswell & Poth, 2016; Thorne, 2016). As data analysis occurred concurrently with data generation, the researcher sampled participants and generated data that questioned the developing findings. More specifically, two sources of variation in the NGNs experience of transition were apparent in the review of the literature: NGNs who asked to extend their orientation periods, and NGNs that had their orientation facilitated by more than one preceptor. Therefore, all participants were asked about their requests to extend their orientation and number of preceptors during data generation.

The researcher also used snowball sampling, which involved asking participants to pass along the study information to other potential participants (Robinson, 2014). Snowball sampling was utilized as a strategy to gain access to participants' colleagues that would otherwise not be attainable with the researcher's recruitment strategies (Naderifar et al., 2017). Participants hold knowledge of colleagues' experiences that could contribute to or challenge maximum variation. For example, the researcher was interested in speaking to NGNs who started their careers in the ED but left during their early transition to practice. A disadvantage of snowball sampling was the sharing of study information was out of the researcher's control, where referred colleagues might not be eligible to participate in the study. This was mediated by the inclusion of the eligibility checklist on the *Study Information and Consent* document.

Sample Size

This research study could feasibly inquire about the experience of transition to 10-12 participants, depending on the theoretical variation found during concurrent data generation and analysis. Researchers who use the ID qualitative design are instructed to consider what knowledge is required to answer the research questions and how to gain access to knowledge ethically and respectfully (Thorne, 2016). In addition, Thorne disagrees with data saturation as a measure of capturing all variances and the magnitude of a phenomenon (Thorne, 2016).

Recruitment Strategies

For convenience purposes, recruitment focused on six hospitals that provide a variety of emergency services within the southwestern region of Ontario, Canada. As per the Ontario Ministry of Health and Long-Term Care (2009), all hospitals within the recruitment region were classified as Group A or B hospitals, meaning they were affiliated with a university and agree to teach healthcare providers, or were a general hospital with greater than 100 inpatient beds. The hospitals within this region provide emergency services to patients of all ages and all ailments, with individual hospitals designated to attend to psychiatric, pediatric, and oncology emergencies. Hospitals providing emergency care solely to pediatric patients were excluded as NGNs within these hospitals receive specialized training for the population they care for.

Two main recruitment strategies were used in this study: networking with the managers of the respective EDs and social media advertising. Managers of the respective EDs were contacted through the researcher's and university's network of contacts. These managers were provided various materials to disseminate study information. They were provided an email template to send by intraoffice email to their staff and other managerial contacts (Appendix D.2).

In addition, a poster containing the study information was posted in their department (Appendix C). The researcher used social media including posts on Twitter, Instagram, and Facebook to advertise the study (Appendix C). Once participants voluntarily contacted the researcher for participation, all email communication and document sharing followed the schedule outlined in Appendix D.1. Recruitment started in May 2022 and ended December 2022.

Data Generation

Data were generated through the collection of brief demographic, orientation, and ED characteristics followed by a virtual semi-structured interview which gathered audio and observational data. All documents pertaining to data generation are outlined in Appendix E. The *NGNs in the ED: Demographic and Transition Experience Questionnaire* (Appendix E.1) gathered information on participant demographics and details of the NGN transition experience, such as previous experience in the ED, time between graduation and employment, orientation length and interruptions, and areas of practice in their ED. The principal investigator (master's student) virtually interviewed individual participants for 60 to 90 minutes. The researcher used Zoom video conferencing through their university account, as it is a reliable and secure platform for conducting interviews that is cost-effective and flexible for both the participant and the researcher (Gray et al., 2020). When conducting the interviews, the researcher used an interview guide (Appendix E.3) consisting of main questions and probes to cue ideas and conversation (Luciani et al., 2019). The interview guide was informed by previous studies that have explored the transition of NGNs in critical care or specialty settings (Baldwin et al., 2021; Lalonde et al., 2021; Mollerup & Mortensen, 2004). The researcher piloted the interview guide with colleagues and classmates, receiving feedback on interview flow and order of questions (Brod et al., 2009; Kallio et al., 2016). In addition, the interview guide was approved by the researchers'

supervisory committee prior to submission to ethics. Participants received a copy of the interview questions (Appendix D.8) after signing consent (Appendix D, Email #3) and 48 hours prior to the interview (Appendix D, Email #5). This provided them with an opportunity to reflect on their experience and develop detailed answers. Throughout the interviews, the researcher gathered important observational, methodological, and theoretical notes that added depth of context to the analysis of the interview transcripts (Appendix E.4) (Phillippi & Lauderdale, 2018).

Data Management

This study used various online software programs to collect and organize data: Microsoft 365 Outlook, Word, and Excel; Adobe Fill & Sign; Limesurvey; Zoom; MacDrive; and MaxQDA. A summary of the programs used, including their purpose and security features, is outlined in Appendix F. Most programs were accessed using the researcher's university account to benefit from their security features. During data generation, all files and records associated with participants were encrypted and stored on MacDrive, a secure cloud storage solution privately hosted by McMaster University. The software programs used for data generation and analysis were kept on the researcher's password protected computer in their home office. Upon completion of the study, an archive of de-identified study data was transferred by the researcher to a password protected USB key and will be destroyed after 10 years. All remaining files and records from the study on the researcher's personal computer and associated online accounts were destroyed.

Data Analysis

As per Thorne (2016), the ID design does not prescribe a specific approach to data analysis. The researcher is required to make an informed decision on the data analysis approach based on their disciplinary lens and the research study goals (Thorne, 2016). Therefore, Braun and Clarke's Reflexive Thematic Analysis (RTA) was chosen due to its compatibility with the ID design, such as the active and reflexive involvement of the researcher, flexibility and transparency of approaches and theoretical positioning, and guidance towards analysis (Braun et al., 2015, 2018; Braun & Clarke, 2006, 2021; Thorne, 2016; Thorne et al., 2004)

RTA follows six steps promoting an active and inductive approach to analysis: (1) familiarizing yourself with the data; (2) generating initial codes; (3) searching for themes; (4) reviewing themes; (5) defining and naming themes; and (6) producing the report (Braun & Clarke, 2006). Familiarization with the data occurred through the researcher transcribing the interview audio or reviewing and correcting the transcripts created by the transcriptionist. Concurrent data generation and data analysis was achieved by the researcher applying initial codes to individual transcripts while still recruiting and conducting interviews with other participants. Once all participant interviews were transcribed and individually coded, the researcher searched for initial themes across data sets. The researchers and supervisory committee discussed and revised the proposed themes and sub-themes, further synthesizing and recontextualizing data into findings (Thorne et al., 2004). Themes were defined and elaborated through the production of a report that reflected the participants' experience of being an NGN in the ED setting.

Strategies to Promote Rigour and Trustworthiness

General principles that promote rigour and trustworthiness are different in ID design, and include epistemological integrity, representative credibility, analytic logic, and interpretive authority (Thorne, 2016).

First, epistemological integrity requires the methodological decisions made throughout the qualitative research process to be consistent with the assumptions of the design chosen (Thorne, 2016). Based on the foundational underpinnings of the ID approach by Thorne (2016), the naturalistic context was maintained by conducting the interviews virtually, allowing participants to choose a comfortable setting that promotes the generation and sharing of experiential knowledge. Confidentiality and anonymity were paramount to ensure participants felt comfortable sharing their human experiences on the phenomena in question. To gain insight on multiple possibilities of transition experiences, this study sampled participants from six different hospitals with varying features.

To achieve the second criterion of representative credibility, the reported findings must be consistent with how the study was sampled (Thorne, 2016). This study clearly outlined the conditions and boundaries in which the study was conducted. To attain representative credibility while considering the feasibility of recruitment, the researcher sampled from two different hospital systems each containing three urban hospitals. Recruitment and sampling were representative of the employment facilities and settings in which NGNs in Canada typically enter nursing practice (National Council of State Boards of Nursing, 2022). Indices of variation in previous studies on NGN transition to critical care nursing were investigated to ensure the representation of those variations in the findings. Participants sampled in this study were at

various phases in their transition experience, supporting the representation of NGNs' experience over time.

Third, analytic logic requires the researcher to explicitly outline and justify decision-making processes (Thorne, 2016). Analytic logic was maintained throughout this study by the researcher keeping a thorough audit trail alongside their reflexive journaling (Thorne, 2016). Pairing the audit trail with the journal of reflexivity allowed the researcher to match the decision-making process with the reasoning reflected in the journal of reflexivity (Thorne, 2016). Any methodological or strategic changes that were made throughout the study were documented in case of discrepancy.

Finally, interpretive authority requires the researcher's claims to be trustworthy and reveal "some truth external to his or her own bias or experience" (Thorne, 2016, p. 235). The researcher made their intentions clear about the importance of the knowledge generated in this study for the discipline of nursing (Thorne, 2016). As the researcher is the instrument of qualitative inquiry, they participated in critical reflection and reflexive journaling of their positionality within the phenomena of interest and the study context (Creswell & Miller, 2000; Locke, 2019). The scaffolding section of this study explicitly states the researchers' position within the phenomena in question, providing transparency to the relationship between their experiences and the knowledge produced from the qualitative inquiry (Locke, 2019). In addition, the researcher's graduate supervisor and committee provided support and reviewed their progress throughout the study. All versions of the analysis were annotated with references to the participants' transcripts to ensure their perspectives were preserved throughout the data analysis.

CHAPTER FIVE: STUDY FINDINGS

Overview of Chapter

This chapter outlines the study findings informed by the participants using the methods described above. The chapter includes the results from the collection of demographic, orientation, and ED characteristics. The study findings from participant interviews are described in themes and subthemes that correspond to their experience of starting their professional nursing careers in the ED environment.

Demographics

A total of ten participants were sampled from six hospitals in southwestern Ontario, Canada. A summary of the demographic findings in this study are outlined in Table 2. All participants in this study were between the ages of 23 and 28 years old, with a mean age of 25.5 years. Seven participants (70%) identified as female, and three (30%) as male.

Table 2

Summary of demographics for NGNs in the ED (n=10)

Variables	Demographics		Transition time		Employment	
	Age	Gender	Graduation to start	Start to interview	ED hiring status	Hours per week
Range	23-28 yrs.	F: 7 M: 3	0-5 mo.	5-22 mo.	FT: 9 PT: 1	36-48 hrs:10
Mean or %	25.5 yrs.	70% F 30% M	2.3 mo.	14.3 mo.	90% FT 10% PT	100% FT hrs

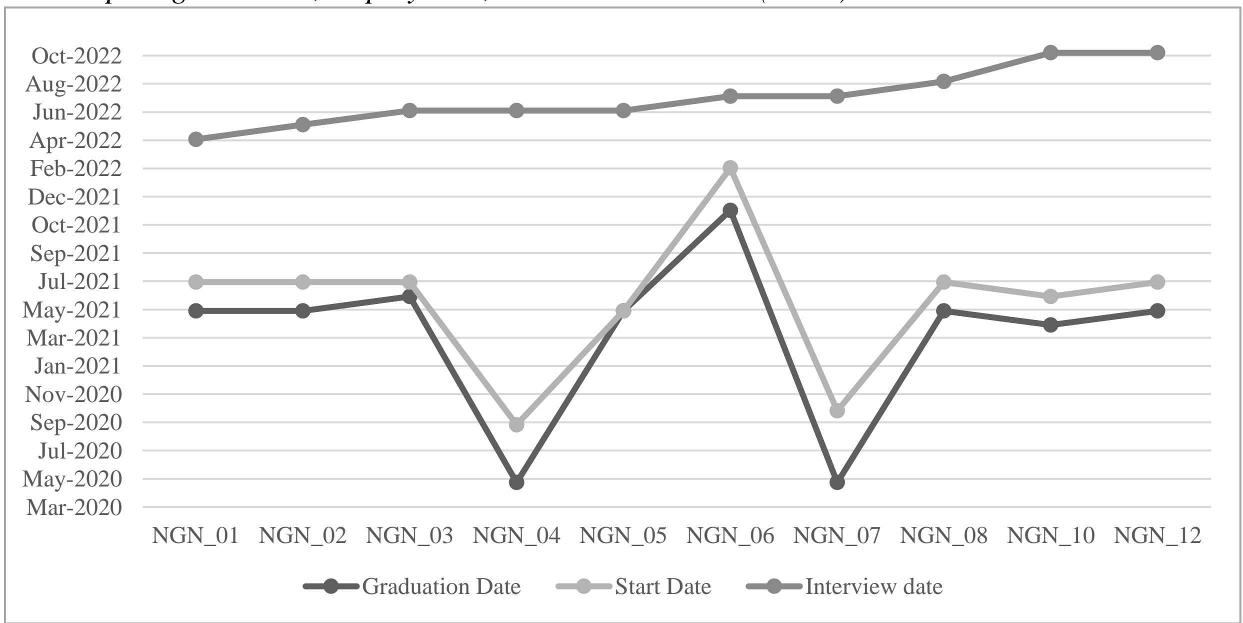
Note: years (yrs); months (mo.); hours (hrs); female (F); male (M); full-time (FT); part-time (PT)

All participants in this study graduated and started working as an NGN in the ED after May 2020. All but one participant was hired to the ED on a full-time basis, however all worked 36 - 48 hours a week during their first year of nursing. At the time of this study, all participants

continued to work in the ED in which they were initially hired. Figure 1 outlines the time elapsed between when the NGNs graduated, started in the ED, and were interviewed for this study. Majority (70%) of the participants in this study started working in the ED between May and July 2021. On average, participants waited 2.3 months following graduation to start their first nursing position in the ED. When interviewed, all participants had practiced in the ED for a minimum of five months to a maximum of 22 months, with most participants having practiced as an RN in the ED between 1-1.5 years.

Figure 1

Participant graduation, employment, and interview dates (n=10)



Orientation and ED Characteristics

NGNs in this study participated in the standard onboarding activities for new staff in their organization and respective EDs. This included a general orientation which introduced them to their organization's policies, procedures, and technology, and supernumerary time with an experienced nurse, otherwise known as a preceptorship. The length of orientation and

preceptorship were different between the six hospitals in which NGNs were recruited. In half of the hospitals, NGNs received six weeks of in-class orientation that included instruction of critical care and ED nursing, with three weeks of preceptorship. In the other half, NGNs received three weeks of in-class general hospital orientation, along with 12 weeks of preceptorship. The comparison of these different orientation and preceptorship approaches between systems is beyond the scope of this study, however important to acknowledge as a circumstance of the NGNs' transition.

The EDs in which participants were sampled had multiple patient care areas. Table 3 outlines the potential distribution of patients in the EDs recruited in this study. When a patient arrived to the ED, a triage nurse assessed the patient using the Canadian Triage and Acuity Scale (CTAS) and assigned them to the appropriate care area based on their medical complaint, severity of their illness, and available nursing resources (Canadian Association of Emergency Physicians, 2013b). The distribution of patients was subject to change in extenuating

Table 3

Areas of care in ED and associated patient needs

Acuity	ED section	Nurse to (:) Patient ratios	Patient presentation	Examples of treatment
Low	Urgent Care	Team nursing	Ambulatory, non-urgent medical concerns	Lacerations, closed fractures, prescription request etc.
Low/Medium	Rapid Assessment Zone (RAZ)	1:10-14 or Team nursing	Ambulatory, urgent medical concerns	Abdominal pain, fevers, uncomplicated head injuries etc.
Med/High	Acute care/ Observation	1:4-5 or 2:10	Non-ambulatory emergent patients	Hip fractures, NSTEMI, DKA etc.
High	Cardiac Care	1:3	Patients requiring telemetry	STEMI, sepsis, cardioversions etc.
High	Resuscitation/ Trauma	1:2 or 2:4	Life-threatening medical treatment	Decompensating sepsis, Gunshot Wound etc.

circumstances, such as ED overcrowding or mass casualty situations. NGNs starting their careers in the ED were assigned to areas of low to medium acuity, such as Urgent Care, Rapid Assessment Zone (RAZ), and Acute Care/Observation. Additional training and experience were required to work in higher acuity areas, such as Cardiac Care, Resuscitation/Trauma, and Triage.

Overview of Major Findings

Four main themes were generated from this study: (1) the effects of the ED environment, (2) the introduction to practice, (3) the adaptation in practice, and (4) the evolution over time.

1. ED Environment

Factors of the ED environment impeded NGNs' learning of their RN role and responsibilities during their transition to practice. Factors such as complex patient workloads, unpredictable patient volume and flow influenced all phases of NGN transition. Despite participants being assigned to less acute area when they started to practice independently, issues of patient flow through the ED (e.g.: hospital overcrowding and increasing patient volumes) resulted in more medically complex patients being assigned to the areas intended for less acute patients. As these less acute areas were staffed with fewer nurses, the increase in workload hindered the NGNs' ability to safely care for the acutely ill. For example, some NGNs described situations of caring for unstable patients in the RAZ area or being assigned a stabilized resuscitation patient in their Acute Care/Observation assignment to make space for an incoming trauma. NGNs also noted vastly different circumstances of patient volume, acuity, and flow on a shift-to-shift basis. While participants anticipated this volatility in the ED environment, they found it challenging to understand the expected nursing responsibilities of the various areas or provide the appropriate care based on the available resources. For example, because of hospital

overcrowding and admitted patients being held in the ED, one participant described how their assignment was the only one available for ED patients, rotating through dozens of patients while their adjacent partner attended to the same four admitted patients in that same shift.

Several concerns related to staffing in the ED made a significant impact on the NGNs' transition to practice. For example, short staffing was exacerbated by extended leaves of absence and isolation protocols implemented due to the COVID-19 pandemic. During their orientation to the unit, nine of the ten participants had multiple preceptored shifts changed in their schedule because of short staffing. The changes resulted in being placed with a full patient assignment in a less acute area or being paired with their preceptor in a role designated for multiple RNs. A participant was advised that an interrupted preceptorship was "just the norm now", and only one participant was granted replacement preceptored shifts for the ones lost. With interrupted preceptorships, NGNs felt deprived of valuable learning opportunities. A participant described their preceptor's concern about short staffing interrupting their ability to teach like this:

> There were times we [preceptor and NGN] were just stretched so thin. I remember a moment of [preceptor] being like 'Oh, this would be such a good learning opportunity, but I just don't have time to teach it to you…' That was a big factor in not being able to transition well. (NGN_06)

Beyond their preceptorship and as they developed their autonomy in practice, NGNs were given increasing workloads to compensate for short staffing. Increasing workloads included additional or increasingly complex patients within their assignment or working alongside similarly inexperienced coworkers. The increased workload also impacted their experienced coworkers, impeding NGNs' ability to rely on them for support. Having a mixture of experienced and novice

nurses working alongside each other aided in NGNs' ability to manage their workload and take the necessary time to learn about their role and responsibilities as ED nurses.

2. Introduction to Practice

The second main theme of this study describes the NGNs introduction to practice in the ED. While NGNs were advised by their undergraduate instructors and preceptors of the prevalence of complex workloads and short staffing in the ED setting, NGNs were persistent in their pursuit of practicing emergency medicine. Many were inspired by family members or instructors who shared their experience of ED nursing. Some started their nursing education with the intention of practicing in the ED. Others were attracted to the challenge and variety of emergency medicine after feeling indifferent to the other areas of nursing they had experienced during their in-hospital placements as students. A participant described their motivation for ED nursing like this:

> It [the ED] definitely is very stressful, but I feel like you get a lot from it. Because med/surg is really good for the foundational skills, which I completely agree with, but in the ED, you get medical patients, because not everyone goes up right away. So, it's a good way to see every type of patient. I have had every patient you can possibly have: peds, mental health, surgical, medicine, ICU, step down, telemetry. You get them all there which I kind of like. (NGN_03)

Upon graduation, nine of the ten participants applied solely to EDs for employment, as it fit their interests and personality. The subthemes that detail the participants' introduction to practice are as follows: preparedness and support for ED practice; their perceived inability to meet high expectations; and occupational stress.

Preparedness and Support for ED Practice

NGNs in this study recounted various barriers and facilitators within their academic and organizational training that impacted their preparedness for ED practice. Furthermore, initial pushback from colleagues and limited leadership support throughout the NGNs' transition made it increasingly difficult for them to integrate to the area of practice.

Academic Preparation and Support. For the NGNs starting their careers in the ED, six of the ten participants in this study felt their theoretical preparation fell short of preparing them for the realities of their RN role. One participant understood that their schooling prepared them for general nursing practice, with three others acknowledging the challenges they would face in starting their careers in the ED. All the NGNs wished their academic education included more teaching and practice of skills they most often used in the ED and found most challenging in their first year of practice. These included intravenous insertion, phlebotomy, charting, medication reconstitution, head-to-toe assessments, death and dying, communication with family and interdisciplinary team, prioritization, and time management. NGNs felt they learned most about these skills post-licensure when transitioning to the workplace. As previously described, environmental factors of the ED made teaching and learning these requisite skills difficult, compromising NGNs' transition experience.

As for practical preparation offered by academic organizations, participants found experiential learning through in-hospital placements and simulation instruction was the most effective strategy to understand their upcoming role and responsibilities. Participants appreciated placements that exposed them to a variety of care areas and ability to practice a wide range of skills and knowledge. However, four participants described issues with their placements due to the COVID-19 pandemic, including placements lacking variation in care areas and isolation

precautions impeding observation of procedures and skills. Otherwise, they noted how placements in certain care areas did not require practice in skills they would need in their upcoming RN role. Some examples included limited charting in outpatient oncology or not practicing intravenous medication preparation in mental health or hematology. Additionally, NGNs were unable to practice certain RN skills as per organizational policies (e.g., venipuncture and foley catheters). While NGNs were able to practice these skills during simulations on mannequins, there was a significant difference in how they were performed in real-life practice. For example, patient scenarios in simulations were veiled in ideal circumstances and unlimited timelines. As students or preceptees, NGNs practiced the RN role and responsibilities under safe and often idyllic circumstances. Their practice responsibilities were supervised by preceptors and temporary to their time in placement. A participant described patient simulation scenarios in school and noted the differences between those and the work in the ED:

> If you're in a class setting the scenarios were always happy endings. And that's absolutely not how it goes. Even the other day I had a patient who was desatting [lowering oxygen saturation] … someone's yelling at me about wait times, and somebody else is screaming for their pain meds… It's not all just 'do what we say, and it will work out' … They don't really prepare you for that reality of being responsible for all of what's going on here. (NGN_06)

The limited practice and exposure to skills and knowledge led to a substantial learning curve upon entry to practice, sometimes resulting in stress on patients due to multiple attempts by the NGN to successfully perform the skills.

All participants in this study pursued opportunities to gain ED experience prior to graduation. Eight of the ten participants experienced ED nursing in some capacity before being

employed as RNs. Five participants had an ED placement, two were hired as a clinical extern, and one volunteered in the ED. These opportunities exposed NGNs to nursing practice beyond what they learned in school, which further motivated them to practice in the ED once they graduated.

Organizational Preparation and Support. NGNs described various aspects of their organizational orientation and support that impacted their transition to the ED. Participants appreciated a focus on critical care knowledge not included in their academic education. By having an orientation specific to emergency nursing, they could link their theoretical learning to practical observations during their transition. One participant described the positive outcomes on their preparation for practice: "I felt pretty strong theoretically [after critical care orientation]. If somebody asked me a theoretical question, I think I'd have a good foundation, or way to critical think through patient situations" (NGN_06). NGNs suggested the in-class orientation occur before their preceptorship or between sporadic shifts to promote the gradual application of theoretical learning to practice.

As the participants continued through their introduction to practice, the preceptored shifts were the most beneficial preparation for transition to the ED. As noted above, these preceptored shifts were not always available. When they were, NGNs and their preceptors took a gradual approach to increasing patient acuity and responsibility for the workload. The participants progression through preceptorship generally included shadowing their ED preceptors before taking on responsibilities, followed by managing a patient assignment in the less acute areas, such as RAZ or Acute Care/Observation. In collaboration with their preceptors and based on their comfort levels and learning needs, NGNs would gauge how much responsibility they would gradually take on in the allotted number of precepted shifts.

Participants in this study were conflicted when assessing their readiness for practice after their preceptorship. Participants were unable to experience the wide range of ED patient variety and nursing responsibilities while being supported by an experienced colleague. Of the six participants who had 12 weeks of preceptorship, two felt prepared to take on their full RN responsibilities. The remaining four acknowledged that they "never would have felt ready", needed to "put my head down, roll up my sleeves" and "just went with it". A participant described how it felt when they no longer had a preceptor like this:

> Being on your own kind of felt like stepping directly off a cliff into the deep end. I've kind of dipped my feet in [during preceptorship]. I didn't know how little I knew until I was really on my own. (NGN_02)

Of the four participants receiving three weeks of preceptorship, three felt they needed more time, stating they were "just thrown in" to a "sink or swim scenario". The one participant who felt prepared for autonomous practice after their short preceptorship attributed their readiness to team nursing (a model of nursing where a group of nurses work together providing care to a group of patients). Team nursing benefitted this participant as they had a designated partner to turn to for questions and/or assistance. Despite the benefits of preceptorships and experiential learning, the NGNs' preparedness for practice was challenged by the acuity, variety, and unpredictability of patient situations characteristic of the ED environment. Once independent in their practice, NGNs felt pressure to quickly assimilate into their role and responsibilities as an RN and a team member.

NGNs perceived a lack of formal support from their hospital leadership team (unit/clinical manager and nurse educator) throughout their transition. First, participants wished aspects of their preceptorship were better organized. For example, participants dealt with

scheduling issues with their preceptor or were assigned to an inappropriate preceptor, such as one who occupied more advanced trauma, triage, and charge nurse roles. One NGN continued to experience interruptions in their preceptorship despite being told the issue associated with the interruptions would be addressed. Similarly, another participant was advised by a leadership team member that they were "lucky" to have received the length of preceptorship they were given. Participants continued to experience short staffing and interruptions to their preceptorship without observable change toward the contrary. NGNs expected greater attention from the leadership team when they raised concerns about barriers to providing optimal nursing care. Most participants in this study sought support elsewhere, concluding that the leadership teams' attention was beyond day-to-day nursing responsibilities. In addition, three participants noted a high turnover of members across their leadership teams. One participant described their understanding of the difference between managers and nurses like this: "Sometimes the goal of the department or the goal of management isn't in line with the goal of us as nurses" (NGN_12).

The role of the educator was mentioned by eight of the ten NGNs in this study. Three participants acknowledged value of educators circulating in the ED, offering teaching and making availability to answer questions. However, the remaining participants assumed their educators would have a more active presence on the unit and impact on their transition from student to RN. In the following quotes, participants described the support provided by educators in the ED:

> She's [educator] incredible, but she only works days, Monday to Friday. And how often do my shifts actually align with weekdays? It's probably like four or six a month, and the rest are nights or they're weekends. So that resource is not always available, but it's an excellent one when it's there. (NGN_06)

> I felt like there was support when you were in your preceptorship. But as soon as you were done, there was nothing anymore. Like management [educator and manager] was checking in with you during your preceptorship. But then, once you were on your own, there was nothing. (NGN_01)

NGNs stated they would have benefitted from more support from the leadership team, such as frequent check-ins, educational reviews, and performance feedback on their transition to the ED RN role. NGNs were unsure if they were doing well and who to turn to for additional support.

Support from Colleagues. NGNs had mixed experiences of support from their more senior coworkers, which impacted their learning and acceptance to the ED. Participants wanted to be competent in their autonomous practice to live up to the expectations that inspired them toward emergency nursing. They felt they needed to prove that they belonged and showcase their ambition for ED nursing. However, they were apprehensive about relying too heavily on their colleagues for fear of showing their inexperience. Two participants described their reluctance around asking coworkers for help like this:

> It was very hard to ask those questions because I didn't know anybody here. I've never done this job before, everything is intimidating. I want to ask these questions, but I don't want my colleagues to hate me. (NGN_04)
>
> There are a lot of new staff that I'm meeting for the first time. I don't really want them to think I'm an idiot right off the bat. (NGN_10)

On occasion, NGNs had negative interactions with their RN colleagues, especially those who were unfamiliar with their capabilities:

> I would ask them a question and they would just treat me like I was a moron. And then I'm like 'Look, I'm asking you a question because we are a

> healthcare team, and we are here to provide patient care.' And if I'm asking you a question it's because I don't know and I want to provide good patient care. (NGN_04)

> I remember hearing one of the nurses saying that the new grads come in and they don't do anything. They don't help anyone out. They only do what they need to do for themselves, and they don't help anyone else out. And I always just thought it was funny because in my head, I'm like 'they're [NGNs] probably doing that because they can barely manage what they need to do themselves. It's not because they don't want to help.' (NGN_01)

NGNs found these impressions from colleagues prevented their learning and integration into the unit culture. Knowing there was pushback on NGNs transitioning to nursing practice in the ED, participants became discouraged by their dependency on colleagues' support and their inability to be a fully contributing team member.

Perceived Inability to Meet High Expectations

Participants found it difficult to meet the high expectations of emergency patient care and uphold their interpretation of a "good RN". Due to the workload pressures of the ED environment affecting their healthcare team, participants wanted to be able to practice independently. Two participant shared thoughts about their newfound independence as nurses in the ED like this:

> I think you'll learn early on how it is just you. And if you are not confident in your skills, then again, it's just you. Who's going to protect you at the end of the day? You never know. If you're going to put me in this room, I need to be competent. (NGN_07)

> It felt like somebody slapped me with a badge that said RN, and it was like, you have to do everything that an RN can do now. (NGN_06)

NGNs did not feel prepared for the level of autonomy and responsibility in often uncontrollable and unfamiliar situations in the ED.

During the initial transition period, participants focused on task completion. As they were still learning, each task required time to understand, initiate, and complete. Therefore, NGNs felt they were slow at completing tasks, ensuring they knew the policies and procedures, double-checking their approaches, and asking questions to their colleagues for clarification. Completing tasks was further complicated by circumstances inherent to ED practice, such as rapidly changing patient status or interruptions from colleagues and patients. The task list would continue to grow, taking time away from the hands-on care they intended to provide. When leaving tasks undone or taking more time to complete them, NGNs felt neglectful and unable to catch up, relinquishing their perception of the ideal nurse they had expected to become. A participant described it this way: "I don't feel I can be the type of nurse that I sort of envisioned yet, because I don't have the time" (NGN_06).

To meet what NGNs felt was the appropriate level of care, some participants in this study would miss their unpaid breaks or stay late to complete their unfinished charting. Five of the ten participants were concerned about the potential for mistakes throughout their shift. They feared that these mistakes could lead to patient harm or death and the revocation of their RN license. Two participants described these concerns as learners in the ED environment:

> I felt like someone was going to get hurt because I'm learning, but I'm also running around chaotically because I'm trying to do 50 things at once, because we're so busy that I was just worried I was going to make a mistake, and I was

> worried I'd come home every night worried that I would miss something. (NGN_01)
>
> I didn't feel supported, I didn't feel like I knew enough, there were definitely days when I felt like I was leaving things undone, or I had done things wrong, and there was no debriefing, there was no follow-up. I was afraid of making critical mistakes. (NGN_02)

As a result, NGNs described leaving their shifts distressed and feeling inadequate as nurses. The combined stress of NGNs' perceived shortfalls and challenging patient and environmental conditions resulted in occupational stress and mental health concerns.

Occupational Stress

Participants described the impact of persistent occupational stress on their mental health. In trying to manage above-average workloads, NGNs were concerned about compromising the safety of their care, thereby doubting their ability to be ED nurses. A participant shared their feeling of powerlessness here:

> I can't really pinpoint one specific event. I think it was just the aggregate of a whole bunch of micro moments that are on replay in my head. There were times where I felt so powerless or useless because I didn't know which way was up. It was just a pattern of me not knowing what I was doing that made me feel that way [couldn't be an ED nurse]. (NGN_12)

Participants' stress was exacerbated by patient suffering, violence, critical incidents, and death. Three participants had their first experience with patient death as NGNs. Multiple participants recounted experiences with verbal and physical abuse, often related to circumstances beyond their control, such as wait times, and the need to prioritize sicker patients. Unfortunately, NGNs

reluctantly acknowledged that some of these experiences were "part of the job," despite the negative effects on their mental health.

Occupational stress infiltrated into the NGNs' personal lives in a variety of ways. All but one participant described ruminating beyond work hours, either after an overwhelming shift or experiencing anxiety before their next shift. The rumination led to interrupted sleep, noticeable weight loss, and for one participant, a diagnosis of Post-Traumatic Stress Disorder (PTSD). Two participants described occupational stress like this:

> All I did was dread going to work when I wasn't at work. I had severe anxiety about my next shift. I didn't do anything aside from pretty much sit in my bed for the first 6 months. I just felt really alone, and I didn't feel like I had anyone that I could talk to who could relate to me. (NGN_01)
>
> When you feel like you've had a bad shift, I took it really personally. Like I would feel like I would do a bad job. I'd be nervous about going in the next time. I'd think 'Oh I'm not even good at this. What am I doing.' (NGN_10)

Despite many of the challenges NGNs faced resulting from factors in the ED environment, some perceived their inadequacies as a reflection of their personal worth and ability to be a nurse. The compounding effects of negative workplace events surfaced for NGNs as burnout, powerlessness, isolation, and doubts about their decision to enter the profession.

3. Adaptation in Practice

To develop their nursing expertise and manage the stressors of the transition experience and the ED environment, NGNs described the third main theme of adapting in practice. Their adaptations are described in the following subthemes: interpersonal and occupational resources; workload management skills; and intrapersonal actions and behaviours.

Interpersonal and Occupational resources

As NGNs adapted in their transition to ED practice, a vital subtheme was gathering interpersonal and occupational resources. Practicing autonomously prompted new and more complex questions for the NGNs. To address their learning needs, interpersonal resources started with their assigned preceptors during preceptorship. There were several qualities of a preceptor that benefitted NGNs' development. Participants appreciated preceptors who were receptive and non-judgemental of their learning needs and allowed them to authentically address their inexperience. Instead of assuming the skills and knowledge NGNs had, these preceptors guided them through nursing basics and ED-specific knowledge. Preceptors who did not portray themselves as superior to NGNs fostered an open and intellectual relationship. Two of the ten NGNs noted similarities in age contributed to this humility, as preceptors earlier in their careers could more readily relate to the NGN transition experience. NGNs were not opposed to being paired with multiple preceptors during their preceptorship, as it provided them with various examples of independent practice. Also, participants appreciated preceptors who knew when to relinquish control or reduce their guidance. One participant recounted a discussion with their preceptor about promoting independence in their practice:

> So [preceptor] would often just step in and do something super quickly… And I had to call her out on it because I was getting towards the end of my orientation shifts. I'm like, '[preceptor], you just need to let me drown. You're trying your best to be helpful, but I need to see if I can do this by myself before I'm actually completely on my own.' (NGN_10)

Practicing as an RN independently with preceptor oversight/support enabled the NGNs to enact their role safely and more confidently until they were no longer in their preceptored shifts.

Beyond their preceptorship, participants' primary interpersonal resource were their immediate coworkers. This was especially true with a staffing infrastructure that included team nursing. In contrast, the NGNs practicing primary nursing compiled a catalogue of "safe people" among their immediate cohort of coworkers. One participant appreciated the support they received from specific coworkers without shame or degradation for their inexperience: "I think there were definitely some people that I felt more comfortable with or would answer my questions in a way that I still felt respected and part of the team afterwards" (NGN_10). Having safe people in which participants could be inquisitive and openly address knowledge gaps contributed to participants' confidence and competence in their nursing practice. Working as a full-time employee with the same cohort of colleagues allowed NGNs to develop meaningful relationships with other RNs who served as dependable sources of knowledge and support. Those who did not experience such consistency in the team and/or who started working part-time had to rebuild their support system to utilize this valuable resource.

NGNs found support in other members of the healthcare team, including doctors, charge nurses, respiratory therapists, personal support workers, and unit clerks. NGNs learned that managing one's workload included knowing which tasks or skills could be delegated to corresponding team members. For example, the unit clerks could assist with new orders, the charge nurse could support with disruptive patients or family members, and the doctors could answer questions about patient concerns.

NGNs collected a variety of textual or graphic resources to guide them in their transition to autonomous practice. Participants reviewed their academic and examination notes as homework and created personalized cheat sheets and checklists that could guide them in their practice, such as medication reconstitution or order of assessment. When aiming to improve their

documentation, NGNs would learn from examples in their colleagues' charting. The important organizational documents that NGNs referred to regularly included the medication administration manual and policy and procedure library.

Workload Management Skills

Under the adaptation theme of the NGNs' experience of transition, workload management skills emerged as an important subtheme. Improving their ability to manage the workload included learning to think critically through unpredictable patient situations, prioritizing incoming nursing responsibilities, and managing their time efficiently. Most importantly, participants turned their focus to providing safe and efficient care. NGNs improved their time management and prioritization skills by understanding the time required to complete tasks. As a result, NGNs were able to ensure their patients' safety by actively reprioritizing their nursing tasks according to their capabilities, changes in their patients' acuity, and the volume of their workload. Two other participants described how they improved their workload management skills:

> Part of it [managing my time] was just practice and becoming faster at managing those skills. So faster at grabbing your meds, checking your meds, drawing up your meds. And then one of the other pieces it becoming faster in knowing what to do if you don't know something. (NGN_10)

> I think I handle the five patients better. I know prioritization, I can prioritize my work better, because I have more knowledge than I did a month ago. I know more than I did eight months ago, so I don't have to ask for as much help with certain things, like how to run a certain drip, how to do this, how to do that. I've done it now. (NGN_08)

Another participant learned that delayed or delegated tasks were not negative reflections of their capabilities as nurses, but an indication that their critical thinking would address the most unstable patient or critical task:

> I've had to learn in emerge, which is sometimes tough, is prioritizing safety over comfort, which I don't think patients like necessarily. I don't think I would like it. But you know, sometimes someone wants me to fluff their pillow and cover their feet with a warm blanket when I have bloodwork and meds to give. That's [prioritizing safety over comfort] been a motto for me that helps me feel better about setting my boundaries with patients on what I will do for them and when. (NGN_10)

Time management and prioritization were central to critically thinking through their full patient assignment and task list. NGNs recognized when their limitations impeded their ability to perform competently and knew to utilize their interpersonal and intrapersonal resources to act accordingly. This was remarked by one participant like this:

> I also think that my critical thinking skills have improved, where I can reasonably sort of work through a problem rather than freak out and say I have no clue what I'm doing and go for help first. So, I think all those things are part of the maturation process as an ER nurse. (NGN_12)

With proper time management, prioritization, and critical thinking, NGNs overall mental well-being at work improved, including taking breaks without distraction and reducing distress in and out of the workplace.

Intrapersonal Actions and Behaviours

The third subtheme participants described as they adapted in practice included intrapersonal actions and behaviours. NGNs in this study found few or inadequate formal mental health resources to cope with their occupational stress. Some examples included a participant having issues receiving insurance coverage for their appointments, another navigating different resources after their negative experience with the employer-appointed therapist, and another being unaware of the available resources. Therefore, participants described behaviours that allowed them to internally process emotional and mental stressors of the transition experience. Some participants resigned from their ability to control various situations, acknowledging that while certain experiences were undesirable, they were inevitable. One participant described their resignation like this:

> I just embraced the suck, because it sucks but this is just what it is like. I don't try to dwell on it anymore. I can't do anything about it so there's no point getting upset or stressing about it. (NGN_01)

Others reasoned through distressing emotions with logic and facts. For example, when experiencing death in the ED, a participant dampened their emotional reactions to the event, logically explaining to themselves the circumstances surrounding their patient's passing: "I don't know if this is right, but I try not think of it as an emotional sense. So, I'm like, they were sick, they are comfortable now, the family had a chance to say goodbye" (NGN_03). Similarly, one participant justified a patient's anger as unfamiliarity with the hospital system and inability to cope with their medical emergency. Removing the emotional component of the experiences reduced the negative impact of the stressful situation for these participants. In another example, two participants described mentally coping with negative situations by reframing experiences

into learning opportunities: “Some of the transition has been that emotional learning—to be a little bit less hard on myself. Because I am so new, and so inexperienced, and every experience is a learning moment” (NGN_06). Instead of dwelling on the negative aspects of the experience, they would “reflect, process, and try again”, approaching a similar situation differently the next time

Four participants in this study described actions toward releasing emotional and mental strain from occupational stress, such as debriefing about clinical experiences. When looking to debrief, NGNs would turn to people who understood what they had experienced and the resultant distress. As described by the following participant, close coworkers, family, and friends became confidants with whom participants could most authentically be themselves:

> I had a lot of support from my friends and my husband in the first year. They were a shoulder to cry on when I had some difficult stories of people who treated me like garbage. But then they were also the same people who were able to call me out when I was becoming someone who was bitter and maybe more irritated than I was a year ago. They were able to hold me accountable to the person that they knew me to be. (NGN_10)

Although less frequent than debriefing, NGNs found that returning to a healthy lifestyle, acquiring appropriate medications, and engaging in therapy were helpful as they transitioned to practice. A few participants recognized the positive impact that healthy habits had on their mental health, such as going to the gym, practicing yoga, healthy eating, and getting the appropriate amount of sleep. Some participants acknowledged alcohol and marijuana use to help with sleep or to ease anxieties.

Despite the benefits these intrapersonal actions and behaviours brought to NGNs coping with their transition experience, one participant questioned the sustainability of their methods: “Strategies I use, although some effective, were all just made up by me in a kind of survival mode type of way, but not in a researched, psychological way, which I feel would be a great support” (NGN_06). Four of the ten participants recommended more transparent and readily available mental health resources that can support NGNs through the shock of transition and adverse events in the ED.

4. Evolution over Time

The participants’ experiences during their introduction and adaptation to ED nursing practice contributed to the fourth main theme of this study, their evolution over time. This evolution includes the following subthemes: developing confidence and competence in their RN role; personalizing their professional nursing identity; and recommendations for future NGNs looking to transition to nursing practice through the ED.

Time and exposure to practice were important influences on the NGNs’ evolution to nursing practice. In gaining familiarity with the variety of patient situations they could encounter, NGNs developed confidence and competence in their nursing abilities and resilience through the challenges of the ED environment. Two participants described this evolution as follows:

> I think that I just needed time to transition. I mean I had the most amazing staff support available. I just needed time to get more and more exposure and learn more myself… so once I started to actually see these same patients or see the same scenarios over and over and over again is where I sort of thought to myself, you know what, I am an ER nurse. (NGN_12)

> A bit over a year in it started to move towards 'I know what I'm doing.' And sure, that's very inexperienced in many regards. But after a year in, if I don't know what I'm doing, I know how and where to figure it out… I became a lot more confident in my practice, a lot more confident that the way I was functioning wasn't endangering my license and I felt a lot better going home about the things I did that day. (NGN_04)

The impact of time and exposure on NGNs confidence, competence, and nursing identity is further described in the associated subthemes.

Confidence and Competence in Practice

For participants in this study, confidence and competence were developed through exposure and familiarity with patient situations and environmental circumstances. None of the participants described feeling fully confident in their abilities after the orientation and preceptorship they received. However, their self-confidence fluctuated throughout their transition, described by some as "comfortable being uncomfortable". Participants learned that caring for ED patients with infinite variations of medical ailments, situations, and environmental challenges required acting in circumstances they may not have personally encountered in their practice. One participant described their developing confidence like this:

> I think most of the supports comes from just going in, experience it and doing it. And again, just knowing when to say I can't do this but then also being like, the only way you're going to be able to do this is throw yourself in there and be uncomfortable the first few times to get comfortable. (NGN_05)

Participants noted confidence in certain competencies taking longer to harness. For example, one NGN became rapidly confident and competent in manual skills, such as intravenous insertions and phlebotomy, however admitted to taking longer to feel the same when caring for children.

Later in their first year of transition, participants in this study were given increasingly more responsibility, such as becoming trained in trauma or becoming a preceptor. Participants described feelings of excitement and apprehension around fulfilling these more advanced roles as it challenged the confidence and competence they had developed over time. Six of the ten participants felt that they were not ready for the additional responsibilities, commenting that it felt like their transition process was "starting over" and "being uncomfortable all over again". For three NGNs in this study, short staffing expedited this progression to more advanced roles: "How am I supposed to be showing someone what to do when I'm still figuring it out myself?" (NGN_01).

> Orienting for trauma/resus, I said 'I think it's a little quick, I've been at this for literally a year.' And then one of the responses was, 'yes, but we don't have staff for every area.' So, it's a big jump to trauma. (NGN_05)

For these NGNs, the increase in responsibility reintroduced the stress of managing the workload and a new challenge to time management. Whether NGNs felt ready or not, training towards advanced roles was an expected, however reluctant step in becoming fully trained as ED nurses. Therefore, NGNs described returning to the tools they developed in the adaptation phase to encourage confidence in their new responsibilities.

Nursing Identity

With the experiences from the introduction and adaptation phases of their transition, NGNs described exploring the kind of ED nurse they wanted to be. The following quote highlights one participants' understanding of their developing professional identity:

> I realized I had to make some decisions about what kind of nurse I wanted to be, and how I wanted to go about my career. And it was probably… a few more months of finding my bounds, getting more comfortable and competent, start resus training which will also set things into perspective because dealing with the worst of the worst at that point. (NGN_10)

Participants identified personality traits that strengthened their professional identity in nursing. Most participants emphasized changes in how they communicated to manage challenging patient situations and workplace environmental pressures. Described by one as building "thickness to my skin", many participants grappled with the benefits and drawbacks of this approach. For example, a participant described "being assertive and speaking up" to their physician and charge nurse as beneficial in advocating for patients' healthcare requirements. In contrast, participants were learning to balance assertiveness with compassion and empathy. For example, the following quote described one participant's way of respectfully communicating boundaries with patients who were becoming verbally aggressive toward them:

> You get yelled at, screamed at, and people are verbally abusive… I think that made me have tougher skin, which I think helped with my transition as well. I think being kind is a good quality to have as an RN, and obviously being compassionate and having empathy. But I think at the same time you need to have a bit of an edge to you as well. (NGN_12)

Similarly, one participant described learning to efficiently communicate care expectations with patients to maintain time management and prioritization:

> It took me a while to build the skills to be assertive enough. But then also learn to do it politely. Like firmly but kindly steer people back to 'OK, you've said you've had this problem for six years, but you're here today. So why are you here right now?' [when performing patient head-to-toe-assessment] (NGN_10)

Participants in this study cited perseverance, self-awareness, and initiative as important traits they developed during their transition experience. Despite facing hardship, NGNs demonstrated an unwavering commitment to forging ahead in growing as ED nurses. Participants felt it was important to be self-aware of their limitations, when to ask for help, and how to de-stress in a healthy way. The following participant believed taking initiative was necessary to learn, improve, and thrive in the ED environment:

> I guess my own drive to be in the ED [influenced my transition experience], because I don't want to fail, I don't want to sink, I don't want to be anywhere else. So then, I'd come home and review my [critical care orientation notes], research things, read my own studies if I had questions on things. (NGN_05)

Most participants described how they embodied traits of being a supportive team member into their nursing identity. All NGNs in this study acknowledged that they benefitted from the community of colleagues who supported their transition experience. At this phase of their transition, NGNs understood that ED nursing was dependent on teamwork. For example, colleagues were needed to turn patients for incontinence brief changes, stabilize a patient's head during a log roll, and run to get medications while the primary RN monitored the airway and vitals of a patient having a seizure. In addition, having experienced intimidating and

exclusionary behaviour from colleagues in the past, this participant incorporated attributes they found supportive in their "safe person" early in the transition process:

> Like we all had bad experiences with other nurses, and I think that we as a collective just kind of decided 'I'm not going to be like that,' like that's not OK. How are we going to have a nice healthy working environment if that's how we treat our new staff? (NGN_04)

This recognition solidified the NGNs' desire to become healthy and supportive team members to their current and new coworkers. Therefore, participants focused on being non-judgemental and receptive to colleagues' needs, especially when they upgraded to precepting roles.

Despite the challenges they faced during the introduction, adaptation, and evolution phases of their transition to nursing practice, all but one participant in this study intended to continue working in the ED in some capacity. Furthermore, participants provided recommendations to students interested in emergency medicine, including the benefits and challenges of such a transition experience.

Recommendations for future NGNs in the ED

All participants in this study were cautiously supportive of students' interest in transitioning to practice through the ED. If advising students towards transitioning to nursing practice through the ED, participants felt it was important to be direct about the realistic expectations of transitioning in this environment. Participants wanted future NGNs to be fully informed of the challenges they may face, such as the steep learning curve, ED environmental circumstances, adverse events, and complex and unpredictable workloads. A few participants cautioned prospective NGNs of what to expect if starting their careers in the ED:

> If emerg is really what you want to do, you can do it as a new grad. It's going to be a steep learning curve and you definitely have to be very careful in the first few months… So just going slow and making sure that you take advantage of every support you can. If you don't think you're comfortable with it, don't be afraid to go to medicine… Because emerg is more than a challenge; It's a risk… And so being prepared to take that risk is up to the person. You want to be as careful as you can with it. (NGN_02)

> Even if everybody was nice, even if management was wonderful, even if all your colleagues were sweethearts, the reality is that you're still learning so much that you never touched in school… Every setting has its unique challenges but in emerg particularly, the breadth of knowledge that you have to have is just enormous. So, it's going to be hard. (NGN_04)

Three participants suggested students experience the ED before their transition to their RN role to ensure the environment is feasible for their learning and work ethic. In addition, three other participants agreed that a trial in this environment would promote students' awareness of their capabilities and accountability in their decision on where to transition.

Despite informing students of the difficulties of potentially transitioning to nursing practice through the ED, all were keen to promote the benefits of their experience. One participant described their novelty to the profession as an asset to their learning like this:

> I think the variety is very nice, especially as a new grad because you're eager to learn. So, you're eager to go to all these places and be like, 'Oh what are you doing? Can I watch? Can I do this? Can I stand on the little stool and look over one of the trauma rooms and see what they're doing?' I feel like there's

> more interesting things that happen in the ED versus the [med-surg] floor. (NGN_08)

Participants' support for NGNs in the ED was a result of the valuable skills and knowledge they gained by starting their careers in this area. In addition to what they described throughout the study findings, one participant reflected on their ability to see the progression of multiple disease processes, the effects of medical interventions, and the variety of patient populations in the ED. Another participant commented, "You get to use your nursing scope really to its fullest." Despite NGNs feeling intimidated at times, they advised prospective ED NGNs to be unafraid to ask questions, as it was crucial to developing confidence and competence in their practice. As one participant remarked, they felt confident in any future role they wanted to navigate in the nursing profession with the knowledge and skills they had acquired in the ED: "You could pretty much go to any area after being in emerg because you've touched so much of everything" (NGN_04). Overall, participants in this study believed transitioning to professional nursing practice through the ED was challenging but fulfilling. As a result, all but one participant intended to continue practicing in the ED in some capacity.

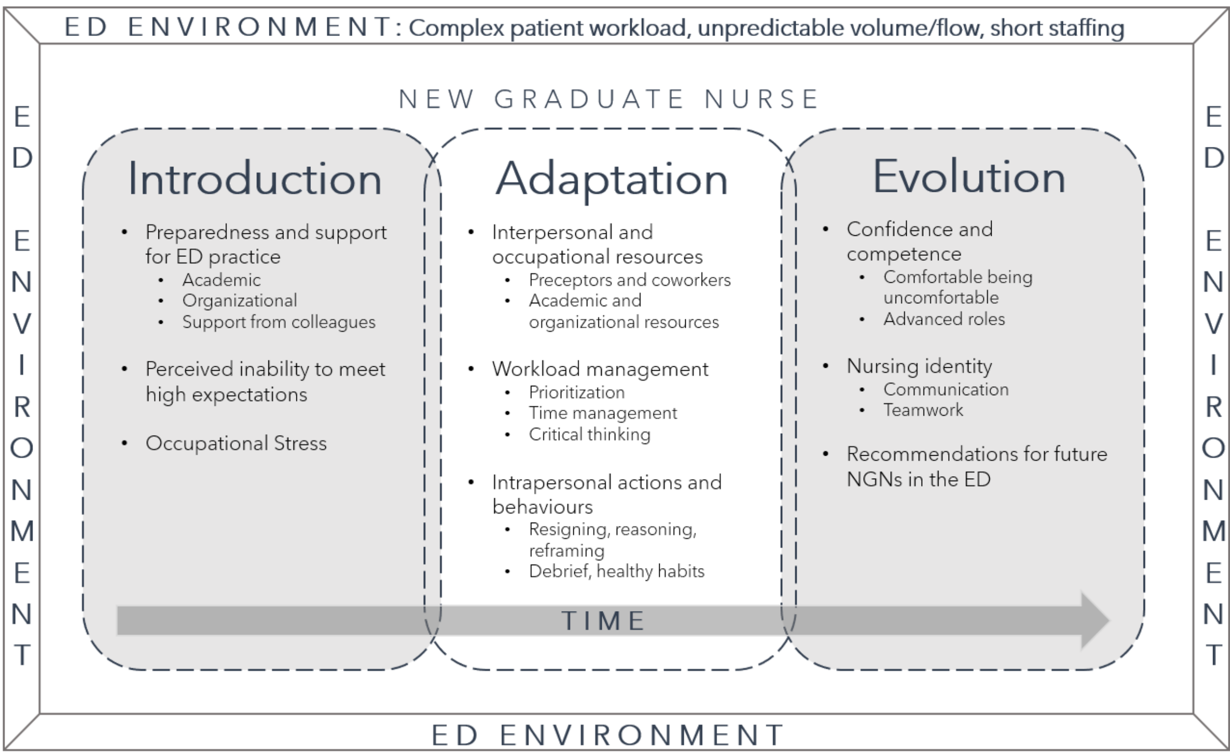
Summary of Study Findings

Participants in this study provided an in-depth account of their experience transitioning to nursing practice in the ED. Figure 2 was created by the researcher and presents a visual representation of the themes and associated subthemes. As demonstrated in the visual representation, the impact of the ED environment surrounds the three main themes of the NGNs' experience of transition to nursing practice. The introduction, adaptation, and evolution themes contain the subthemes that described pertinent experiences during those phases. As described in

the evolution phase, time throughout all three phases impacted the individual NGNs' practice as they were exposed to the ED setting.

Figure 2

Experience of NGNs who transition to nursing practice through the ED



CHAPTER SIX: DISCUSSION

Overview of Chapter

This chapter discusses the key findings from this study in relation to what is known in the current literature on NGN transition to the ED and other critical care settings. The implications of these findings on nursing education, clinical practice, healthcare policy, and future research are also described. The chapter concludes with a discussion of the study's strengths and limitations.

Key findings

New Graduate Nurses who transitioned to nursing practice in the ED highlighted four main themes of their experience: the effects of the ED environment, their introduction to practice, their adaptations in practice, and their evolution over time. Complex patient workloads, unpredictable patient volumes and flow, and short staffing challenged these participants' transition experiences. As participants were introduced to the nursing profession in the ED, they emphasized the academic and organizational preparation and support that facilitated or hindered their transition to practice. The introductory experiences prompted adaptations in their practice to fulfill their new role and responsibilities. Most notably, NGNs accumulated interpersonal and occupational resources, developed their workload management skills, and fostered intrapersonal actions and behaviours to cope with their transition experiences and the ED environment. Time and exposure to practice allowed the NGNs to evolve into more confident and competent practitioners. The participants' evolution included developments in their professional identity as nurses in the ED.

ED environment

This study provides a valuable description of the ED environment from the NGNs perspective and its impact on their transition experience. All participants in this study conveyed their understanding of the dynamic nature of the ED setting and the extent of uncertainty associated with various patient scenarios and conditions. Despite being assigned to less acute areas, NGNs were responsible for complex patient workloads resulting from challenges in patient flow and short staffing. With limited preparation and experience in ED nursing, these environmental factors contributed to the NGNs perceived inability to meet the high expectations of patient care.

The impact of complex workloads of acutely ill patients on NGNs' perceived competence and confidence in practice can be explained through their understanding of acuity. A concept analysis from Brennan and Daly (2009) cited the patient-related definition of acuity as the onset and severity of disease requiring time-sensitive assessments and treatments. However, the NGNs' perception of acuity from the present study aligns more closely with the provider-related definition of acuity, which considers the nursing time, skill, workload, and cognitive ability to care for patients (Brennan & Daly, 2009). NGNs in this study reported lacking time, skill, and cognitive ability to address the complex workload in the ED. Similar findings were described in Sterner and colleagues' (2018) study on NGNs perspective of acute situations. From a sample of NGNs (n=12) in non-critical care units in five Swedish hospitals, they determined that NGNs perceived situations as acute when they experienced sudden changes in workload, had insufficient time, perceived their competence and skill level were lacking, and were overwhelmed by personal responsibilities. In addition, this perception worsened when organizational deficiencies were apparent (e.g., lack of staff, patient overcrowding) and

challenges with interpersonal relationships arose (Sterner et al., 2018). An interpretive phenomenological study that included NGNs (*n*=8) from critical care settings in the US described their experiences of caring for deteriorating patients (Della Ratta, 2016). Their findings suggested that NGNs determine their developing competence as nurses on these unexpected occurrences, where an inability to manage acute situations led to self-blame and anguish (Della Ratta, 2016). The findings of the present study indicate that ED factors that are outside of the NGNs' control had a personal impact on their learning and fulfillment of their role and responsibilities, resulting in occupational stress.

Additional factors that impacted NGNs' transition were related to the organization such as short staffing, hospital capacity and patient flow. Staffing issues have been cited as a primary disruptor in NGNs' orientation and preceptorship (Hussein et al., 2019a; McCalla & De Gagne, 2015; Nour & Williams, 2019; Serafin et al., 2021). Canadian hospitals continue to contend with ED overcrowding as a result of boarding of admitted patients in hospital spaces meant for emergency patients, otherwise known as access block (Canadian Association of Emergency Physicians, 2013a; Canadian Institute for Health Information, 2022). Data from Canadian hospital from 2022-2023 concluded that 9 out of 10 admitted patients completed their hospital visit in the ED within 49 hours, which was an increase from 40.7 hours in 2021-2022 (Canadian Institute for Health Information, 2023). In addition, the volume of patients accessing emergency services continues to rise year after year, with patients requiring increasingly complex treatments and hospital admission (Canadian Institute for Health Information, 2022; Health Quality Ontario, 2016). Circumstances like these impede the flow of patients to the appropriate ED medical resources, where highly acute patients are cared for in areas with reduced nursing resources in lower acuity areas. For NGNs in this study, inappropriate distribution of patients through the ED

and persistent short staffing of experienced coworkers hindered their learning and compromised their confidence in providing safe nursing care to acutely ill patients.

While NGNs in this study reported being aware of the circumstances in which they chose to start their careers in, they appeared unaware of how factors in the work environment would impact their new responsibilities as RNs. Despite circumstances of the ED environment and short staffing having an overall negative impact on NGNs preparedness and access to overburdened coworkers, interpersonal resources prevailed as the primary source of support for them to adapt to nursing practice in the ED.

Introduction to Practice

NGNs' introduction to practice in this study included the barriers and facilitators in their preparation for ED practice, resulting in a perceived inability to meet high expectations of care and occupational stress.

Preparedness to practice

In the current study, NGNs reported feeling unprepared for nursing practice in the ED environment, thereby making the transition process especially difficult. In the nursing literature, preparedness to practice is an enduring worldwide discussion (El Haddad et al., 2017; Wolff et al., 2010). There is a general lack of consensus regarding the definition of practice readiness or preparedness to practice in nursing (El Haddad et al., 2017; Romyn et al., 2009). For example, workplaces want NGNs to "hit the floor running" to compensate for challenges in the nursing workforce and the growing complexity of health care (El Haddad et al., 2017; Romyn et al., 2009, p. 394; Wolff et al., 2010). In contrast, educational institutions focus on preparing nursing students with theoretical and practical knowledge for a variety of professional paths. Nursing

schools in Ontario, Canada are guided by ETP competencies established by the regulatory body and do not include preparing students for critical care settings. However, critical care units continue to hire NGNs as they contend with high turnover of staff. Incongruent expectations from both the educational and practice sectors further contributes to the well-documented theory-practice gap, defined as the discrepancy between theoretical education and clinical practice (Greenway et al., 2019; Monaghan, 2015). Researchers (Hickerson et al., 2016; Mirza et al., 2019; Romyn et al., 2009; Wolff et al., 2010) agree that academic and hospital institutions can take collaborative measures in creating transition strategies that close the gap and further prepare NGNs for practice. Since critical care units require advanced nursing knowledge and skills, NGNs in these areas need strategies that support learning and growth early in their transition to professional practice. Participants in this current study identified several facilitators and barriers in both the academic and organizational settings that impacted their preparedness and transition to clinical nursing practice.

Facilitators to Preparedness. In the current study, NGNs' transition to the ED was facilitated by exposure to critical care nursing during their student placements or work as an extern. In the scoping review by Inayat and colleagues (2021) on nursing students' preparedness for critical care practice, placements in critical care were crucial in helping students understand the complexities in patient care they could encounter. With these learning opportunities, students felt prepared to recognize deteriorating patients, implement interpersonal skills to collaborate in an interdisciplinary environment, and manage critically ill patients. Exposure to patient situations in critical care contributed to students developing confidence in their ability to care for critically ill patients, manage technological equipment, apply their theoretical knowledge to practice, and perform skills effectively. In addition, students from the reviewed studies were more inclined to

choose critical care areas of practice after graduation (Inayat et al., 2021). Previous qualitative studies also associated insufficient readiness for critical care practice to a lack of exposure to critically ill patients while in school (Serafin et al., 2021; Wiersma et al., 2020). The eight participants from the present study who had ED experience felt the placements or externships helped their understanding of nursing expectations in this environment and informed their decision to start practice in the ED

Participants from this study benefitted from an ED specific in-class orientation and felt more confident entering their preceptorship with a foundation of critical care knowledge. Similar findings were reported by NGNs (*n*=41) who participated in the critical care residency program in Quebec, Canada (Bérubé et al., 2012). Participants credited the monthly education sessions over their first year of transition as improving their self-confidence and reducing their fear in complex patient situations (Bérubé et al., 2012). Various integrative and systematic reviews of transition programs include classroom instruction for specialty areas; however, their impact is not evaluated independently from other transition strategies such as preceptorship time (Missen et al., 2014; Rush et al., 2019; Salt et al., 2008). More knowledge is needed on the efficacy of in-class teaching and learning initiatives in hospital organizations that specifically support new nurses to critical care areas such as the ED.

During their preceptorship, NGNs commended the guidance they received from varying preceptors, appreciating the differences in knowledge and approach to ED practice. This finding contrasts with other studies, where NGNs described negative experiences with multiple preceptors (Adams et al., 2015; Charette et al., 2019; Elias & Day, 2020; Kaddoura, 2013). In some studies, having multiple preceptors prevented NGNs from receiving in-depth feedback from a dedicated preceptor (Adams et al., 2015; Charette et al., 2019). The difference in results

could be related to the number of preceptors NGNs worked with. Participants in the current study only had a different preceptor when their assigned preceptor was in a more advanced area of the ED or was absent. In a qualitative systematic review of studies exploring NGNs experience of transition in critical care, participants in various studies were negatively impacted by not having an assigned preceptor and being supervised by whoever was willing to take them during a shift (Elias & Day, 2020). Two integrative reviews on best practices for NGN transition further emphasize the importance of a designated resource person to the success of a preceptorship program and to the transition of NGNs to practice (Innes & Calleja, 2018; Rush et al., 2019). While NGNs had a positive learning experience with different nurses in the ED, a consistent and designated preceptor was important in both the introduction and adaptation themes of their transition experience.

Barriers to Preparedness. Most participants in this study agreed that their pre-licensure education did not prepare them for the realities of ED nursing practice. NGNs attributed this barrier to the limited exposure to acutely ill patients and situations during student placements and simulations, and the short and interrupted duration of organizational orientation and preceptorship. This finding is consistent with several studies of NGNs in both acute and critical care areas, who also described their theoretical preparation surpassing their practical preparation (El Haddad et al., 2017; Elias & Day, 2020; Feng & Tsai, 2012; Serafin et al., 2021). However, due to the expansive scope of the nursing role, studies on the subject recognize that nursing schools cannot prepare students for everything they could potentially encounter in practice (Hatzenbuhler & Klein, 2019; Romyn et al., 2009). For example, a large qualitative descriptive study that included NGNs (n=14), staff nurses, employers, and educators (n=133) across Alberta, Canada remarked “complete practice readiness before entering the workforce was

deemed impossible" (Romyn et al., 2009, p. 7). Nursing curriculums worldwide are preparing novice nurses with a broad range of knowledge and skill to practice safely and competently in a variety of settings. Therefore, it is unrealistic to have the expectation of specialized knowledge and skill from NGNs hired in the ED without the learning and practice to support it.

Most participants reported the limited length of hospital preceptorship as a barrier to their transition experience. Extended orientations and preceptorships for NGNs in high-acuity areas is largely supported in the literature (Baumann et al., 2019; Baxter, 2010; Bérubé et al., 2012; Proehl, 2002). As described by Baumann and colleagues (2019) in their qualitative exploratory study in Ontario, Canada of NGNs (n=18), nurse leaders (n=16), and preceptors (n=7) in specialty areas, extended orientation facilitates work readiness, allowing novice nurses to gradually take on responsibilities under skilled supervision of an experienced practitioner. In addition, findings from the evaluation of the critical care residency program from Bérubé and colleagues' (2012) study highlighted the benefits of extended preceptorship on preceptors. Compared to their previous standard orientation, preceptors felt the six months of preceptorship with a NGN was the appropriate amount of time to teach the requisite skills for critical care nursing and develop a strong foundation for critical thinking. Findings from this study also indicated a 26% increase in retention and a 46% increase in recruitment as a result of the implementation of their extended orientation program (Bérubé et al., 2012). The specialized nature of emergency medicine and NGNs' inexperience with critical care patients requires organizations to consider extended orientation and preceptorship initiatives to ensure appropriate preparation of ED nurses.

An interesting finding from this study was participants attributing their success after a shorter preceptorship to the team nursing model in their ED. This finding emphasizes the

importance of NGNs' direct colleagues as the primary resource for their learning and skill development. Various studies support the team nursing model in reducing negative patient outcomes and supporting job satisfaction in nurses early in their careers (Fairbrother et al., 2010; Ferguson & Cioffi, 2011; Fernandez et al., 2012; King et al., 2015). However, the evidence is absent to justify team nursing as a replacement for preceptored time with an experienced nurse. Participants in this study described various situations in which they did not have their team nursing partner, such as when they were taking their break, a patient in their care required intensive nursing resources, or their partner was similarly inexperienced. Therefore, organizational initiatives such as extended preceptorships ensure there is time and support for NGNs to develop confidence and competency, which are required to practice autonomously and safely.

The primary message generated by the participants in this study is that both academic and hospital institutions are essential in preparing nursing students for the grand scope of the nursing profession. NGNs interested in the emergency medicine require additional training beyond their generalist education as ED nursing require advanced knowledge and skills. To minimize the theory-to-practice gap of such a transition, findings from this study and supporting literature reinforce the need for collaborative teaching and learning strategies between academic and hospital organizations.

Perceived inability to meet high expectations

Despite the facilitators that prepared NGNs for ED practice, the barriers resulted in participants feeling inadequately equipped with the knowledge and skills for the transition from student to critical care nurse. This resulted in a perceived inability to meet high expectations and occupational stress. The participants in this study felt unable to provide what they felt or were

taught was adequate care. These findings align with other critical care NGNs' experiences on the transition to practice. In Serafin and colleagues' (2021) qualitative phenomenology study of NGNs (n=17) in various ICUs in Poland, participants reported the quality of care they provided was suboptimal because of insufficient practical knowledge and experience. Similarly, NGNs in a Canadian ICU from Vanderspank-Wright and colleagues' (2019) mixed-methods study described dichotomizing their nursing practice into being a "good" and "bad" nurse. Participants felt insecure when having difficulty managing the workload or deviating from the ideal nursing practice they were taught in school (Vanderspank-Wright et al., 2019).

More concerning was the NGNs' concern for their patients' safety. The World Health Organization defines patient safety as the "absence of preventable harm to a patient and reduction of risk of unnecessary harm associated with healthcare to an acceptable minimum" (2023). In the case of emergency medicine where rapid decision making, critical thinking, and expert time management is needed, participants in this study were actively aware of their knowledge discrepancies and inexperience with critically ill patients. Similar to participants in Murray and colleagues' (Murray et al., 2019a, 2019b, 2020) mixed methods study in Australia of NGNs' (n=11) understanding of patient safety, participants were concerned about patient safety resulting from their difficulties in managing growing workloads. Unlike participants in the present study, the NGNs in Murray and colleagues' study benefitted from a twelve-month transition program that supported their skill development and time management (Murray et al., 2020).

NGNs in this current study focused on completing tasks and this contributed to their confidence in emergency nursing. However, task completion was complicated by the unpredictable nature of ED patient care and their continued learning needs. This finding is

consistent with other studies on NGNs' transition in both critical and non-critical care settings, where focusing on task completion is restricted by time constraints, interrupting the development of their knowledge and skills to complete tasks safely (Duchscher & Painter, 2021; Murray et al., 2019; Sterner et al., 2018). Benner's extensive research on nurses' skill acquisition and development states NGNs (advanced beginners) take a linear approach to patient care, preventing them from seeing beyond the task at hand (Benner, 1984; 2004). However, as discovered by participants in this study, the inherent unpredictability and volatility of patient care in the ED is inconsistent with a linear approach. Participants from the Murray and colleagues' study shared that while completing tasks during a shift led to more positive opinions of their ability to manage the workload, compromising safety to complete tasks could lead to mistakes that negatively impacted patient care (Murray et al., 2019b, 2020).

Occupational stress

Without the satisfaction or confidence of competently enacting their professional role and responsibilities, NGNs in this current study suffered from occupational stress and mental health concerns. This was further compounded by the challenges of the ED environment. These findings align with other studies that confirm the relationship between circumstances of the critical care environment to NGNs developing occupational stress (DeGrande et al., 2018; Duchscher & Painter, 2021; Vanderspank-Wright et al., 2019; Wakefield et al., 2023; Zhao et al., 2021). Due to the pressure and nature of the workload in the ED, NGNs have reported high levels of physical and psychological stress (Zhao et al., 2021). For example, Boamah and colleagues (2017) conducted a time-lagged quantitative inquiry sampling of over 400 nurses across Canada, confirming their hypothesis of short-staffing interfering with NGNs' work-life balance. In addition to occupational stress related to workload and inexperience, NGNs in the

current study were distressed through their first experiences of adverse events, such as violence, patient suffering, and death. Unfortunately, traumatic and adverse events occur frequently in the ED setting (Adriaenssens et al., 2012; McDermid et al., 2020; Phillips et al., 2022). New nurses managing difficult situations with patients and visitors have reported psychological distress such as self-perceived inadequacy and failure (Duchscher & Painter, 2021; Zhao et al., 2021). As suggested by Serafin and colleagues (2021), appropriate coping mechanisms and support are needed for NGNs wanting to transition to nursing practice in the ED.

For NGNs in the current study, occupational stress permeated into their personal life beyond working hours, such as interrupted sleep, anxiety about upcoming shifts, and increased substance use. Various studies outline cautionary outcomes of NGNs ruminating about negative workplace experiences beyond working hours (Boamah et al., 2017; Wiersma et al., 2020; Zhang et al., 2017; Zhao et al., 2021). The same large national study by Boamah and colleagues (2017) confirmed that interference in work-life balance leads to NGN burnout, job dissatisfaction, and reduced quality of care. The NGNs (*n*=9) from Wiersma and colleagues' (2020) qualitative descriptive phenomenology study conducted in the US expressed job dissatisfaction and decreased commitment to the organization as they went home discouraged about their completed shift. A longitudinal study of NGNs (*n*=343) in China measured 71.8% of their participants expressing intentions to leave the profession after just twelve months of practice, in which occupational stress was a primary predictor of this intent (Zhang et al., 2017). Evidently, the insights gathered in this current study and supporting literature highlight the negative outcomes related to occupational stress, which has consequences for both the nurses new to the profession and the organizations who hire them.

This study provided valuable insights into NGNs' introductory experiences as they transitioned to nursing practice in the ED. Many of the findings are supported by previous studies of NGNs' transition experience in both critical and non-critical care settings. The findings demonstrate important considerations for hospital organizations that continue to hire NGNs to their EDs. The unique challenges of the ED environment and advanced knowledge and skill required to practice safely and confidently can have significant impact on the novice practitioners' occupational fulfillment and stress. Therefore, opportunities for support as NGNs are learning to be autonomous practitioners are needed well beyond their introduction to nursing practice in the ED.

Adaptation and Evolution over time

The two themes of adaptation and evolution described how NGNs in this study were able to move forward with their transition to nursing practice in the ED. A factor that was evident in both these themes was NGNs' need for time and exposure to process introductory experiences, compile strategies that allowed them to adapt, and evolve into confident and competent practitioners in the ED. Multiple studies recognize time and exposure as key components to developing confidence and competence in nurses' professional identity (Clark & Holmes, 2007; DeGrande et al., 2018; Elias & Day, 2020; Feng & Tsai, 2012; Lalonde et al., 2021; Nour & Williams, 2019; Rush et al., 2019; Serafin et al., 2021). The positive adaptations and evolution of the participants in this study could explain their retention in the ED and their support for future NGNs transitioning to the ED. As these two themes contribute to one another, this section will discuss how the NGNs' adaptations of their interpersonal and occupational resources, workload management skills, and intrapersonal actions and behaviours contributed to the evolution in their confidence, competence, and professional identity.

Interpersonal and Occupational resources

Interpersonal relationships were a primary resource for NGNs to adapt to their ED role and responsibilities. The first interpersonal relationship that played a vital role in the NGN transition was their preceptor. Participants described various positive and negative attributes in their preceptors that align with previous studies and systematic reviews on the topic (Edward et al., 2017; Ke et al., 2017; Lalonde & Hall, 2017; Quek & Shorey, 2018; Ward & McComb, 2017). For example, attributes in preceptors that have been found to help NGNs' transition are those who are accommodating, communicative, motivating, and available for their learning needs (Kaddoura, 2013; Myrick et al., 2010). An interesting finding in this study emphasized closeness in age as a positive preceptor attribute for NGNs' transition. Participants acknowledged that the greater the time since their preceptors' transition to practice, the less likely they were able to sympathize with the participants' experience of transition. While there were no reported issues between preceptors and NGNs who had a greater age gap, these attributes can be considered when facilitating this important interpersonal relationship.

An attribute that participants cited as a barrier to building confidence and competence in their independent practice was a preceptor's inability to reduce their supervision according to NGNs' learning needs. A literature review on the NGN journey through transition by Meghani and Sajwani (2013) identified a possible reason for a preceptor's hesitation to relinquish control. They found that critical care patients often require immediate clinical interventions by the RN preceptor due to unstable or unpredictable situations. However, encouraging gradual acceptance of responsibility and promoting independence is shown to aid in developing critical thinking and confidence in NGNs' practice (Kaddoura, 2013). As the preceptor role is crucial to the NGNs

transition to practice, hospital organizations need to consider the tools and support they require to facilitate the novice practitioners' entry to practice.

Beyond preceptorship, the second vital interpersonal resource that supported NGNs' learning needs were "safe people" among their immediate coworkers. In a time where NGNs were striving towards autonomy while simultaneously requiring support through steep learning curves and inexperience, relationships with "safe people" functioned as a consistent and dependable source of support and knowledge. A similar finding is cited in Saghafi and colleagues' (2012) qualitative phenomenology study of NGNs (*n*=10) in an Australian ICU, where participants found the most approachable colleague to guide them through the transition. In addition, evidence has shown that coworkers offering timely and relevant teaching to NGNs contributed to overall job satisfaction and improved confidence and competence in independent practice (Haggerty et al., 2012; Innes & Calleja, 2018; Laschinger et al., 2016). NGNs in this study further outlined the qualities in their coworkers that helped with their transition experience, such as those who did not portray themselves as superior in their knowledge and experience. These findings are similar to systematic reviews on NGN transition that described positive experiences due to relationships that were open and supportive of their learning needs and non-judgemental of their inexperience (Elias & Day, 2020; van Rooyen et al., 2018).

Based on the results of this study and supporting literature, positive workplace culture and supportive coworkers are crucial to the success of NGNs transition to nursing practice. However, researchers have raised concerns of NGNs relying solely on preceptors and immediate coworkers as their primary source of support and learning. For example, Whittam and colleagues' (2021) qualitative narrative inquiry described senior nurses' (*n*=5) experience of working with NGNs in a large ICU in Australia. The senior nurses in this study were attentive of

NGNs entering critical care practice with minimal nursing experience, resulting in overwhelming workloads to ensure the novice nurses' learning needs were met and safe patient care was provided (Whittam et al., 2021). A qualitative exploratory study conducted in Australia by Hussein and colleagues' (2019a) found the NGNs (*n*=26) receiving relevant and timely instruction by coworkers was hindered by increased workload, short staffing, and critical acuity of patients in acute care areas. Duchscher and Painter's (2021) interpretive phenomenological study described the preceptors (*n*=5) receiving little compensation or accommodation in their workload when assigned a NGN, which led to tension in the partnership. Furthermore, other research studies have described preceptors lacking preparation for their role in the NGN transition, leading to the development of mistrust in novice practitioners and further preventing independence to practice (Haggerty et al., 2012; Innes & Calleja, 2018; O'Kane, 2012). If coworkers and preceptors continue to be the primary providers of support and teaching to NGNs, careful considerations regarding preceptor and coworkers' preparation and availability are needed to facilitate the teaching relationship.

As described in the literature review for this study, findings from various qualitative studies in critical care describe positive socialization and relationship building contributing to NGNs feeling of acceptance and belonging to the team (DeGrande et al., 2018; Lalonde et al., 2021; Wakefield et al., 2023, Zarshenas et al., 2014). Interaction with others is known to be a primary component of professional socialization, as it allows transmission of culture and belonging to the new member of a profession (Dinmohammadi et al., 2013; Hussein et al., 2019a; Lalonde et al., 2021). This might explain why NGNs in this study perceived a positive workplace culture based on their coworkers' willingness to support their transition. Evidently, designated resource people, such as preceptors and "safe people" from this study, are

instrumental to the NGNs' transition experience (Innes & Calleja, 2018; Quek & Shorey, 2018; Ward & McComb, 2017). This finding and supporting literature further emphasizes the need to keep NGNs with the same cohort of coworkers from orientation/preceptorship through to independent practice.

Workload Management Skills

In this study, the NGNs' strategies to manage their workload (i.e., prioritization, time management, and critical thinking) made a significant impact on their evolution to ED practice. In a literature review by Theisen and Sandau (2013), challenges in organization, prioritization, time management, and critical thinking impeded the development of competence in knowledge and skills during NGN transition, especially in patient emergencies and end-of-life situations. As most of the patient situations in the ED could be considered emergencies, it is not surprising that the NGNs in the present study developed occupational stress because of their perceived inability to prioritize care or confidently make clinical decisions. Time and exposure to their nursing role and responsibilities in the ED environment allowed NGNs to develop competence and confidence in managing their workload. The influence of time and exposure on competence in workload management was also cited in the mixed methods study by Lalonde and colleagues (2021). Overtime, critical care NGNs developed comfort and confidence in specific capabilities: prioritizing patient care needs, feeling overwhelmed by patient responsibilities and workload, feeling prepared to complete job responsibilities, organizing patient care needs, and feeling that their lack of knowledge and experience may harm a patient (Lalonde et al., 2021).

In this study, the NGNs ability to manage their workload contributed to the evolution of their professional identity. Various studies support the claim that NGNs' professional identity is reinforced by their ability to manage their workload through prioritization, time management,

and critical thinking (Hunter & Cook, 2018; Lalonde et al., 2021; Zarshenas et al., 2014). In a qualitative study investigating socialization in nursing, nursing students and experience nurses from an Iranian teaching hospital remarked that demonstrating their ability to be useful in the workplace fostered a sense of belonging and professional identity (Zarshenas et al., 2014). In a systematic review by Wakefield and colleagues (2023), a sense of belonging and acceptance has been associated with a successful transition experience for NGNs in high-acuity settings. Similarly, in a cross-sectional survey completed by NGNs (*n*=196) in Ontario, Canada, feeling accepted and "part of the team" facilitated NGNs' transition to practice as they felt valued by their peers and shared mutual experiences in the workplace (Hallaran et al., 2023, p.130). Considering the unpredictable and fast-paced circumstances often associated to the ED environment, developing NGNs' workload management skills is increasingly important to provide nursing care confidently and competently.

Intrapersonal Actions and Behaviours

NGNs in the current study described various intrapersonal actions and behaviours that were needed to adapt and evolve through transition to practice. NGNs inwardly coped with adverse situations in the workplace. For example, NGNs in the current study accepted various circumstances of the ED environment that impacted their role and responsibilities, such as unpredictable patient situations and verbal or physical altercations. NGNs adapted to the unfamiliarity and lack of control in emergency nursing by learning how to be "comfortable being uncomfortable." Critical care NGNs from the DeGrande and colleagues' (2018) study similarly coined their experience with uncertainty as "being comfortable with being uncomfortable" (p. 76). Long after the NGNs initial year of transition, participants from the study by Lalonde and colleagues (2021) described improving confidence despite continually experiencing uncertainty

through "firsts" (p. 408). NGNs in the present study adapted to prioritizing safety of patient care over all else. NGNs learned to communicate their boundaries towards incivility and circumstances that compromised patient safety, which they self-described as developing a "tougher skin." This is in contrast to ICU NGNs from the Vanderspank-Wright and colleagues' (2019) study who described becoming more empathetic of patient and family circumstances as they gained experience in critical care. These intrapersonal actions and behaviors were refined by the NGNs through time, exposure, and familiarity to the ED setting. However, they questioned the sustainability of these coping mechanisms as they continued their career in the ED. As they also described significant challenges with occupational stress and mental health concerns, further research and inquiry is needed to ensure that these intrapersonal actions and behaviours are sustainable for a lasting career in ED nursing. These findings of intrapersonal actions and behaviours during NGNs transition to practice in the ED provides a valuable benchmark in which academic and hospital organizations can use to support future novice nurses interested in critical care settings.

The NGNs' experiences described in the introduction and adaptation themes of this study made an indelible mark on their evolution toward developing confidence in their practice and a professional identity as ED nurses. A single comprehensive definition of professional identity in nursing is difficult to ascertain. However, the NGNs experience in this study aligns with a definition that describes professional identity as an adaptive process that coincides with competence in practice (Fitzgerald, 2020; Jarvis-Selinger et al., 2012). In Rasmussen and colleagues (2018) integrative review of factors that influence RN professional identity, they describe certain attributes needed before developing a healthy professional identity. These include autonomy, responsibility, confidence, clinical judgement, organizational structure and

resources and the ability to collaborate with others (Rasmussen et al., 2018). After completing orientation and preceptorship, NGNs in the current study were missing the majority of these attributes. However, as the NGNs' competence grew through cultivating interpersonal relationships, developing workload management skills, and nurturing intrapersonal actions and behaviours, these missing attributes continued to evolve through the uncertainty of ED practice. Despite the challenges NGNs faced as they were introduced to nursing in the ED, their continued tenure as ED nurses during this study highlights overall positive developments of their professional identity. In addition, this study provides important information that key stakeholders can utilize to support to the successful transition of NGNs to emergency medicine.

IMPLICATIONS, LIMITATIONS, AND CONCLUSION

Implications for Nursing Education

This study emphasizes the challenges and successes NGNs encounter as they transition from nursing education to practice in circumstances specific to the ED setting. The implications for nursing education at the academic and organizational level focus on creating opportunities for increasing time and exposure to diverse patient populations and situations to better prepare them for work in the ED.

Academic: Placement opportunities in the ED

Schools of nursing in Ontario, Canada are not required to prepare students for critical care nursing. However, critical care areas continue to hire NGNs at the start of their professional careers. Expanding opportunities for placements in high-acuity settings would benefit students interested in emergency medicine. NGNs in this study felt the opportunity to have a placement in the ED before graduating allowed them to observe the reality of their upcoming role and responsibilities. Research on NGNs in critical care suggest increasing the accessibility and availability of pre-licensure activities in critical care to prepare for transition in these areas (Elias & Day, 2020; Inayat et al., 2021; Serafin et al., 2022). The scoping review by Inayat and colleagues (2021) determined that greater exposure to complex patient situations contributed to students' confidence and competence in their knowledge, skills, attitudes, and values related to critical care nursing. In addition, a quantitative cross-sectional study of Australian nursing students ($n=357$) found their clinical placements in critical care predicted better preparedness for critical care practice ($p<0.001$) compared to the nursing-related work that students participated in ($p=0.333$) (Halcomb et al., 2012).

Academic: Electives for Specialty Nursing

While nursing curriculums are already intensive in preparing NGNs with foundational knowledge in the profession, students' generalist knowledge could be expanded by offering electives in speciality areas of practice. A nursing school in the US explored such an opportunity by collaborating with local practice partners to create electives in a variety of specialty nursing areas (Maneval et al., 2021). The electives were found to improve readiness for students interested in specialty practice, develop prospective new nurses for understaffed specialty areas, and strengthen the relationship between academic and practice partners (Maneval et al., 2021).

Organizational: Extended orientation and preceptorship

In this study, acquiring critical care knowledge and skills during short and interrupted orientation and preceptorships impeded NGNs from feeling safe and confident in the care they provided early in their transition. To improve the transition process for ED NGNs, it is recommended that hospital organizations provide an orientation that teaches critical care and ED nursing practice in addition to an extended preceptorship with an experienced practitioner.

Initiatives implemented to facilitate the NGN transition to nursing practice include internships, residencies, and fellowships (Innes & Calleja, 2018; Kramer et al., 2011; Rush et al., 2019). Examples of programs in critical care areas have detailed curriculums that guide new staff and NGNs to high-acuity areas over 6-12 months (Adams et al., 2015; Bérubé et al., 2012; Friedman et al., 2011; Patterson et al., 2010). Evidence-based teaching and learning strategies include simulation-based orientation (Roncallo et al., 2020; Rutherford-Hemming et al., 2022), problem, peer, and team-based learning (Inayat et al., 2021; Roncallo et al., 2020), in-class teaching (Bérubé et al., 2012; Patterson et al., 2010), and most commonly, traditional

mentorship/preceptorship (Inayat et al., 2021). Multiple reviews of the literature describe positive outcomes of these programs: increased confidence in NGNs ability to care for patients in the critical care setting; competence in knowledge, skills, attitudes, and values of the nursing profession; improved patient and interprofessional communication; and improved nurse retention rates (Ackerson & Stiles, 2018; Inayat et al., 2021; Rush et al., 2019; Salt et al., 2008; Van Camp & Chappy, 2017).

Organizational: Externships

Externships allowed NGNs to experience ED nursing prior to entering the workforce. In response to health care human resource challenges, the Government of Ontario implemented an Extern Program that hired nursing students between their second and fourth year of pre-licensure education to work as unregulated health care providers (Baumann & Crea-Arsenio, 2023; Ministry of Health and Long-Term Care, 2021b). Along with guidance from the *Regulated Health Professionals Act, 1991,* hospital organizations participating in the program determined the scope of practice of the externs. The NGNs who participated in externship programs appreciated the practice and exposure they received, and felt this contributed positively to their transition experience. Externships have shown to "increase undergraduate clinical education, promoting theoretical application in the clinical setting, improving clinical decision-making skills, and enhancing student confidence" (Ruth-Sahd, 2023, p.729). Similar to the other recommendations for nursing education, externships increase NGNs time and exposure to ED nursing practice and environment.

Implications for Clinical Practice

The findings from this study highlighted the importance of interpersonal relationships, workload management skills, and intrapersonal actions and behaviours that NGNs adapted to provide safe and confident care to ED patients. The implications for clinical practice focus on supporting NGNs' transition to nursing practice in the ED at the organizational level.

Formal and Informal Leadership

Findings from this study suggest NGNs needed additional support and feedback beyond preceptorship as they independently navigated their careers as RNs in the ED. NGNs found support for their learning and practice primarily through "safe people" in their group of colleagues. Readily available support is required to guide the newest practitioners in this environment. Colleagues in both formal and informal leadership roles can contribute to this needed support. Formal leadership members include managers, educators, preceptors, mentors, and charge nurses, while informal clinical leaders are staff nurses who impact everyday patient care and guide prospective ED nurses to the workplace (Patrick et al., 2011). An example of a formal leadership role could include an advanced practice nurse that supports everyday skill and knowledge development of emergency medicine. At an informal capacity, baseline staffing should include senior staff that have a reduced workload and an understanding of how to guide NGNs through the broad and unpredictable range of patient situations. For example, the Hussein and colleagues' (2019a) qualitative inquiry of NGNs' experience with clinical support, timely and relevant support from informal clinical leaders was found to be highly effective to guide NGNs' current learning needs. Furthermore, Boamah's (2019) cross-sectional study suggested that leadership behaviours among staff nurses contributed to improved patient care quality and job satisfaction among the team. As promoted by the NGNs in this study, informal clinical

leadership from coworkers was crucial in supporting a healthy and inquisitive environment and sustaining NGNs in high-acuity workplaces.

Preceptor support

As evidenced by the findings of this study, interpersonal relationships with preceptors and coworkers made an undeniable impact on NGNs' experience of transition. While extended preceptorship for ED NGNs is needed, their learning can be dependent on the preparation and availability of preceptors who facilitate the teaching. An integrative review of preceptors' experience with NGNs emphasized the importance of training that informs them of teaching strategies and developmental needs of NGNs transitioning to practice (Quek & Shorey, 2018). In addition, a qualitative phenomenological study of preceptors (n=6) in an Iranian teaching hospital highlighted the need for adequate support during shifts to mitigate workload pressures and give preceptors more opportunities for teaching and feedback (Valizadeh et al., 2016). Hospital organizations can provide this support through preceptor training and appropriate staffing of both nurses and auxiliary staff that can help with delegated tasks. In Hussein and colleagues' (2019b) prospective observational study, satisfaction with clinical supervision was a significant predictor for NGNs' intention to stay in the critical care setting. For NGNs in this study, their positive experience with preceptors fostered a dependable interpersonal relationship for support and learning throughout their transition.

Implications for Policy

Leaders in hospitals that continue to hire NGNs in their EDs could be informed by literature that describes the challenges they face transitioning from student to professional practitioner. More specifically, hospitals can consider policies that protect the orientation and

preceptorship experience of NGNs in the ED and policies that improve the quality and availability of mental health resources.

Policies for orientation and preceptorship

Participants from this study and other studies experienced interruptions in their preceptored shifts or inadequate partnerships with preceptors due to short staffing and high patient workloads. These issues in the ED are not novel, however the challenges described in this study were worsened by the COVID-19 pandemic. Hospital policies can consider protecting NGNs' time in orientation and preceptorship by providing flexibility in replacing missed preceptored shifts or offering more shifts based on NGNs' progression through the transition to practice. Such flexibility was a welcomed feature in Adams and colleagues' (2015) residency program in critical care. Most NGNs in their residency programs extended their time with a staff nurse to gradually gain independence and practice complex patient situations with an experienced nurse (Adams et al., 2015).

During orientation and preceptorship, NGNs from this study adapted best with the support of interpersonal resources such as their immediate coworkers. The socialization NGNs experienced was interrupted when they worked with different cohorts throughout their transition period. NGNs who changed staff cohort after preceptorship or started their careers part-time were unable to access their trusted support network of colleagues. Therefore, policies that can support consistency in coworkers for the first 6-12 months of practice would be beneficial.

Policies for mental health resources

Participants reported experiencing occupational stress related to feeling unable to meet role and responsibilities in the ED environment. They also experienced difficult situations that

heightened their stress, such as patient suffering and verbal abuse. Many did not attempt to access employee assistance programs, or found they did not meet their needs. Mental health concerns among health care professionals are a global concern posing a significant risk for employees' tenure in the workplace, especially in high stress environments such as the ED (Søvold et al., 2021). These issues were further exacerbated by the recent COVID-19 pandemic. Policies to support mental health awareness and timely accessibility to resources is needed. The ED is an area with greater occurrences of adverse events that impact both NGNs and experienced nurses alike (Crilly et al., 2004; Drummond et al., 2021; Ferri et al., 2020; McDermid et al., 2020). Examples of evidence-based strategies for employees, leaders and organizations include self-care plans for everyday maintenance of mental health, psychological first aid in times of crisis, and workplace cultures and leadership that supports mental well-being (Søvold et al., 2021; Fukuti et al., 2020).

Implications for Research

This study provides helpful insights into the NGNs' experience of starting their careers in the ED. Previous studies that have explored NGN transition to practice are generalized to all care environments or emphasize other specialties, such as the ICU. The circumstances of the ED environment are unique compared to other hospital care environments. However, this study is one of the few on NGNs' transition specific to the ED, requiring verification and replication from other studies to improve their transferability and applicability to NGNs in other ED settings. In addition, all but one NGN who participated in this study intended to continue practicing in the ED, missing the experience of those who left the ED setting during their transition to nursing practice. More research on this phenomenon would further inform implications to help NGNs in this highly acute environment.

As evidenced by the findings from this study, the theory-to-practice gap persists as a common barrier to NGN transition. Participants in this study felt they needed more preparation in critical care nursing to confidently enact their role and responsibilities in the ED. There is little standardization of initiatives used to ease the transition of nurses from student to professional practice. For example, the hospital systems sampled in this single study provided different formats of in-class orientation and number of preceptored shifts to their incoming staff. Therefore, research that describes various initiatives and reports their impact on NGNs in the ED are needed. This would provide hospital organizations with the information to ensure orientations are based on best practice and how they influence various metrics in their department, such as job satisfaction, recruitment/retention, medication errors, and quality of patient care.

As reported in the Canadian and American data from the National Council of State Boards of Nursing (2018), the percentage of NGNs hired in critical care areas continues to rise. However, these reports combine ED statistics with other critical care areas, such as ICUs, cardiac care units, step-down units, pediatric/neonatal ICUs, and post-anesthesia recovery units. As it stands, the Canadian healthcare workforce continues to have a significant shortage of workers, especially in critical care areas such as the ED (Baumann & Crea-Arsenio, 2023). The findings from this study highlighted the ED environmental factors that challenged the NGNs transition to nursing practice. Knowledge and transparency of widespread ED hiring practices would support the investment of additional resources for NGNs' integration to high acuity settings.

Strengths and Limitations

This study had some limitations. Transferability of the study findings should be done cautiously. Using the ID approach, researchers can draw conclusions on "human experience

within context" (Thorne, 2016, p. 225). In other words, the findings from this study were interpreted based on the available literature and the perspective of a small group of participants in a delineated context. A detailed description of the academic, organizational, and professional characteristics in this context is provided for readers to interpret the transferability of the findings to their contexts. However, this study provides new insights into the NGN experience of transition from student to RN in the ED environment. Previous research on this topic generalizes the NGNs' experience to all care areas or focuses on other specialties. The ED is a critical care environment that requires nurses to contend with continuous and unpredictable volumes of complex patients with highly acute medical and social needs. This study was able to highlight the factors of the ED environment that affected the NGN transition experience.

The recruitment of participants was challenging despite a variety of recruitment strategies. The initial advertisements for participation in the study were distributed through hospital managers and social media in May 2022, and the final participant was recruited in December 2022. Issues with recruitment could have been related to summer vacations, or nurse burnout from the COVID-19 pandemic. Recruitment strategies focused on the EDs and more widespread dissemination of study information throughout the hospital might have captured NGNs who left the ED during their transition to practice. Based on Thorne's (2016) guidance, the sample size was adequate as the results from the study were able to answer the research questions.

The COVID-19 global pandemic was active between March 2020 and May 2023. The pandemic placed significant strain on the EDs where NGNs were sampled and nursing schools educating prospective NGNs. While this study did not deliberately address the conditions caused by the pandemic and their impact on NGNs' transition, the coinciding timelines infer a potential

influence on the study participants. Participants were not asked specific questions about the impact of COVID-19 on their transition, however data citing the pandemic were captured and analyzed separately. This allowed the researcher to identify and report the overall impact of the pandemic on their transition experience, such as short staffing and student placements. In general, the experience of learning to be a professional nurse was still novel to participants. Therefore, the study findings reflect the NGNs experience without direct mention of the pandemic on their experience.

The student researcher was an insider to the phenomenon considering their position as an RN in the ED. This presented another limitation involving the researcher's relationship with some of the participants in this study. As explicitly mentioned in the methods section, some of the participants were coworkers with the researcher. Measures were taken to reduce the impact of the researcher's relationship with these participants, such as reflexivity and explicit reporting. During the interviews, participants were reminded of the researchers' role as the investigator, and the commitment to confidentiality and anonymity. No concerns of conflict of interest were raised by participants in this study.

The student researcher's position as an insider to the phenomena contributed many strengths in this study. The researchers' knowledge of the ED practice setting allowed the findings from this study to have impactful implications to clinical practice, which is consistent with the ID approach. The researchers' prior knowledge and experience were made explicitly clear in the study scaffolding, in addition to their biases and personal experience being continuously interrogated through reflexive practices of journalling, field notes, and audit trails. These practices contributed to enhancing the credibility of this inquiry. Thorne's five criteria for the evaluation of credibility were met (Thorne, 2016). Moral defensibility was achieved as there

was little evidence of the NGN transition experience in the ED care area. This study has disciplinary relevance as NGNs continue to be hired to the ED as a result of challenges with recruitment and retention. To attain pragmatic obligation, this study suggests implications that have shown promising results in similar clinical areas. This study achieved contextual awareness by providing an in-depth description of the NGNs' education and practice expectations and the layout of the ED environment in which the participants transitioned. Finally, this study was able to create meaning about the NGNs' experience of transition to practice which highlights one of many probable truths about this experience.

Conclusion

This qualitative interpretive descriptive study aimed to explore the experience of NGNs who transitioned to nursing practice in the ED, identifying intrapersonal, interpersonal, and organizational factors that influenced their journey. Results from this study coincided with previous knowledge of the NGN transition experience and emphasized important factors specific to the ED environment. The challenges innate to the ED environment complicated an already difficult transition, such as the unpredictability of patient volumes, medically complex patient workloads, and short staffing. As NGNs were introduced to the ED setting, they highlighted the barriers and facilitators of their preparedness to practice from the academic and organizational training they received. NGNs found it challenging to meet the high expectations of patient care, leading to occupational stress and negative effects on their mental health. NGNs adapted to provide safe and efficient care to their patients, including adopting interpersonal and occupational resources, developing workload management skills, and fostering intrapersonal actions and behaviours. With time and exposure to practice, NGNs evolved into an initial iteration of themselves as professional nurses, feeling more confident and competent in their

practice. Despite the challenges of their transition experience in the ED environment, most participants continued to practice in this high-acuity setting. This exploration of NGN transition experience in the ED provides important information on how key stakeholders in academic and hospital organizations can better prepare, support, and sustain the newest population of nurses to this critical care setting.

References

Ackerson, K., & Stiles, K. (2018). Value of Nurse Residency Programs in Retaining New Graduate Nurses and Their Potential Effect on the Nursing Shortage. *The Journal of Continuing Education in Nursing*, *49*(6), 282–288. https://doi.org/10.3928/00220124-20180517-09

Adams, J. M., Alexander, G. A., Chisari, R. G., Banister, G., McAuley, M. E., Whitney, K. B., & Erickson, J. I. (2015). Strengthening New Graduate Nurse Residency Programs in Critical Care: Recommendations from Nurse Residents and Organizational Stakeholders. *The Journal of Continuing Education in Nursing*, *46*(1), 41–48. https://doi.org/10.3928/00220124-20151217-01

Adriaenssens, J., de Gucht, V., & Maes, S. (2012). The impact of traumatic events on emergency room nurses: Findings from a questionnaire survey. *International Journal of Nursing Studies*, *49*(11), 1411–1422. https://doi.org/10.1016/j.ijnurstu.2012.07.003

Allen, M. P., Jacobs, S. K., & Levy, J. R. (2006). Mapping the literature of nursing: 1996–2000. *Journal of the Medical Library Association*, *94*(2), 206–220.

Allison, M. M. (2006). Comparison of CINAHL® via EBSCOhost®, Ovid®, and ProQuest®. *Journal of Electronic Resources in Medical Libraries*, *3*(1), 31–50. https://doi.org/10.1300/J383v03n01_04

Almost, J. (2021). *Regulated Nursing in Canada—The Landscape in 2021*. Canadian Nurses Association = Association des infirmières et infirmiers du Canada. https://hl-prod-ca-oc-download.s3-ca-central-1.amazonaws.com/CNA/2f975e7e-4a40-45ca-863c-5ebf0a138d5e/UploadedImages/documents/Regulated-Nursing-in-Canada_e.pdf

Alpi, K. M. (2006). Mapping the literature of emergency nursing. *Journal of the Medical Library Association: JMLA*, *94*(2 Suppl), E107–E113.

Altier, M., & Krsek, C. (2006). Effects of a 1-Year Residency Program on Job Satisfaction and Retention of New Graduate Nurses. *Journal for Nurses in Staff Development*, *22*(2), 70–77. https://doi.org/10.1097/00124645-200603000-00006

Aydogan, Y., & Ulupinar, S. (2020). Determining the learning needs of new graduated nurses working in inpatient care institutions. *Nurse Education Today*, *92*, 104510. https://doi.org/10.1016/j.nedt.2020.104510

Baldwin, K., Sleutel, M., Urban, R., Wells, J. N., Behan, D., Walsh, J., & Newcomb, P. (2021). An Exploration of New Graduate Nurses' Transition to Specialty Practice. *Journal for Nurses in Professional Development*, *37*(2), 93–100. https://doi.org/10.1097/NND.0000000000000695

Baumann, A., & Crea-Arsenio, M. (2023). The Crisis in the Nursing Labour Market: Canadian Policy Perspectives. *Healthcare*, *11*(1954). https://doi.org/10.3390/healthcare11131954

Baumann, A., Crea-Arsenio, M., Hunsberger, M., Fleming-Carroll, B., & Keatings, M. (2019). Work readiness, transition, and integration: The challenge of specialty practice. *Journal of Advanced Nursing*, *75*(4), 823–833. https://doi.org/10.1111/jan.13918

Baumann, A., Hunsberger, M., Idriss-Wheeler, D., & Crea-Arsenio, M. (2009). *Employment Integration of Nursing Graduates: Evaluation of a Provincial Policy Strategy Nursing Graduate Guarantee 2008-2009* (19; Health Human Resource Series). Nursing Health Services Research Unit.

Baumberger-Henry, M. (2012). Registered Nurses' Perspectives on the New Graduate Working in the Emergency Department or Critical Care Unit. *The Journal of Continuing Education in Nursing; Thorofare*, *43*(7), 299–305; quiz 306–307. http://dx.doi.org.libaccess.lib.mcmaster.ca/10.3928/00220124-20111115-02

Baxter, P. E. (2010). Providing Orientation Programs to New Graduate Nurses: Points to Consider. *Journal for Nurses in Staff Development (JNSD)*, *26*(4), E12–E17. https://doi.org/10.1097/NND.0b013e3181d80319

Beecroft, P. C., Dorey, F., & Wenten, M. (2008). Turnover intention in new graduate nurses: A multivariate analysis. *Journal of Advanced Nursing*, *62*(1), 41–52. https://doi.org/10.1111/j.1365-2648.2007.04570.x

Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice.* Addison-Wesley Publication Co.

Benner, P. (2004). Using the Dreyfus Model of Skill Acquisition to Describe and Interpret Skill Acquisition and Clinical Judgment in Nursing Practice and Education. *Bulletin of Science, Technology & Society*, *24*(3), 188–199. https://doi.org/10.1177/0270467604265061

Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research*, *15*(2), 219–234. https://doi.org/10.1177/1468794112468475

Bérubé, M., Valiquette, M.-P., Laplante, É., Lepage, I., Belmonte, A., Tanguay, N., Lépine, I., Lalonde, L., & Touchette, S. (2012). Nursing Residency Program: A Solution to

Introduce New Grads into Critical Care More Safely While Improving Accessibility to Services. *Nursing Leadership*, *25*(1), 50–67. https://doi.org/10.12927/cjnl.2012.22830

Boamah, S. A. (2019). Emergence of informal clinical leadership as a catalyst for improving patient care quality and job satisfaction. *Journal of Advanced Nursing*, *75*(5), 1000–1009. https://doi.org/10.1111/jan.13895

Boamah, S. A., Read, E. A., & Spence Laschinger, H. K. (2017). Factors influencing new graduate nurse burnout development, job satisfaction and patient care quality: A time-lagged study. *Journal of Advanced Nursing*, *73*(5), 1182–1195. https://doi.org/10.1111/jan.13215

Boyle, D. K., Popkess-Vawter, S., & Taunton, R. L. (1996). Socialization of new graduate nurses in critical care. *Heart & Lung*, *25*(2), 141–154. https://doi.org/10.1016/S0147-9563(96)80117-8

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2021). Can I use TA? Should I use TA? Should I not use TA? Comparing reflexive thematic analysis and other pattern-based qualitative analytic approaches. *Counselling and Psychotherapy Research*, *21*(1), 37–47. https://doi.org/10.1002/capr.12360

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2018). Thematic Analysis. In P. Liamputtong (Ed.), *Handbook of Research Methods in Health Social Sciences* (pp. 1–18). Springer Singapore. https://doi.org/10.1007/978-981-10-2779-6_103-1

Braun, V., Clarke, V., & Rance, N. (2015). How to use thematic analysis with interview data. In A. Vossler & N. Moller (Eds.), *The Counselling and Psychotherapy Research Handbook*. SAGE Publications Ltd. https://doi.org/10.4135/9781473909847

Brazier, H., & Begley, C. M. (1996). Selecting a database for literature searches in nursing: MEDLINE or CINAHL? *Journal of Advanced Nursing*, *24*(4), 868–875. https://doi.org/10.1046/j.1365-2648.1996.26426.x

Brennan, C. W., & Daly, B. J. (2009). Patient acuity: A concept analysis. *Journal of Advanced Nursing*, *65*(5), 1114–1126. https://doi.org/10.1111/j.1365-2648.2008.04920.x

Brod, M., Tesler, L. E., & Christensen, T. L. (2009). Qualitative research and content validity: Developing best practices based on science and experience. *Quality of Life Research*, *18*(9), 1263–1278. https://doi.org/10.1007/s11136-009-9540-9

Call-Cummings, M., & Ross, K. (2019). Re-positioning Power and Re-imagining Reflexivity: Examining Positionality and Building Validity Through Reconstructive Horizon Analysis. In K. K. Strunk & L. A. Locke (Eds.), *Research Methods for Social Justice and Equity in Education* (pp. 3–13). Springer International Publishing. https://doi.org/10.1007/978-3-030-05900-2_1

Canadian Association of Critical Care Nurses. (2017). *Standards for critical care nursing practice.* (Version 5). Canadian Association of Critical Care Nurses. https://caccn.ca/wp-content/uploads/2019/05/STCACCN-2017-Standards-5th-Ed.pdf

Canadian Association of Emergency Physicians. (2013a). CAEP Position Statement: Emergency department overcrowding and access block. *Canadian Journal of Emergency Medicine*, *15*(6), 359–370. https://doi.org/10.2310/8000.CAEPPS

Canadian Association of Emergency Physicians. (2013b). *THE CANADIAN TRIAGE AND ACUITY SCALE*. http://ctas-phctas.ca/wp-content/uploads/2018/05/participant_manual_v2.5b_november_2013_0.pdf

Canadian Institute for Health Information. (2021). *Health Workforce in Canada, 2020 – Quick Stats.* [dataset]. CIHI. https://www.cihi.ca/sites/default/files/document/health-workforce-quickstats-2020-data-tables-en.xlsx

Canadian Institute for Health Information. (2022). *NACRS Emergency Department Visits: Volumes and Median Lengths of Stay, 2003-2004 to 2021-2022, Supplmentary Statistics* [dataset]. CIHI.

Canadian Institute for Health Information. (2023). *NACRS Emergency Department Visits and Lengths of Stay by Province/Territory, 2022-2023 (Q1 to Q4).* [dataset]. https://www.cihi.ca/en/nacrs-emergency-department-visits-and-lengths-of-stay

Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council. (2018). *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans*. Government of Canada. https://ethics.gc.ca/eng/documents/tcps2-2018-en-interactive-final.pdf

Carnesten, H., Wiklund Gustin, L., Skoglund, K., & Von Heideken Wågert, P. (2022). Battling extraordinary situations and conflicting emotions—A qualitative study of being a newly graduated Registered Nurse in the emergency department during the COVID-19 pandemic. *Nursing Open*, *9*(5), 2370–2380. https://doi.org/10.1002/nop2.1250

Carnesten, H., Wiklund Gustin, L., Skoglund, K., & von Heideken Wågert, P. (2023). Caring through barriers—Newly graduated registered nurses' lived experiences in emergency

departments during the COVID-19 pandemic. *Journal of Advanced Nursing*, *79*(6), 2269–2279. https://doi.org/10.1111/jan.15585

Charette, M., Goudreau, J., & Bourbonnais, A. (2019). Factors influencing the practice of new graduate nurses: A focused ethnography of acute care settings. *Journal of Clinical Nursing*, *28*(19–20), 3618–3631. https://doi.org/10.1111/jocn.14959

Cho, J., Laschinger, H. K. S., & Wong, C. (2006). Workplace Empowerment, Work Engagement and Organizational Commitment of New Graduate Nurses. *Nursing Leadership*, *19*(3), 43–60. https://doi.org/doi:10.12927/cjnl.2006.18368

Clark, T., & Holmes, S. (2007). Fit for practice? An exploration of the development of newly qualified nurses using focus groups. *International Journal of Nursing Studies*, *44*(7), 1210–1220. https://doi.org/10.1016/j.ijnurstu.2006.05.010

College of Nurses of Ontario. (2012). *Requisite Skills and Abilities for nursing practice in Ontario*. https://www.cno.org/globalassets/docs/reg/41078-skillabilities-4pager-final.pdf

College of Nurses of Ontario. (2018). *RN and RPN Practice: The Client, the Nurse, and the Environment*. https://www.cno.org/globalassets/docs/prac/41062.pdf

Copeland, D., & Henry, M. (2017). Workplace Violence and Perceptions of Safety Among Emergency Department Staff Members: Experiences, Expectations, Tolerance, Reporting, and Recommendations. *Journal of Trauma Nursing | JTN*, *24*(2), 65–77. https://doi.org/10.1097/JTN.0000000000000269

Creswell, J. W., & Miller, D. L. (2000). Determining Validity in Qualitative Inquiry. *Theory Into Practice*, *39*(3), 124–130.

Creswell, J. W., & Poth, C. N. (2016). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. SAGE Publications.

Crilly, G., Dowling, M., Delaunois, I., Flavin, M., & Biesty, L. (2019). Critical care nurses' experiences of providing care for adults in a highly technological environment: A qualitative evidence synthesis. *Journal of Clinical Nursing*, *28*(23–24), 4250–4263. https://doi.org/10.1111/jocn.15043

Crilly, J., Chaboyer, W., & Creedy, D. (2004). Violence towards emergency department nurses by patients. *Accident and Emergency Nursing*, *12*(2), 67–73. https://doi.org/10.1016/j.aaen.2003.11.003

Crocker, C., & Timmons, S. (2009). The role of technology in critical care nursing. *Journal of Advanced Nursing*, *65*(1), 52–61. https://doi.org/10.1111/j.1365-2648.2008.04838.x

Cronin, G., & Cronin, C. (2006). Why does A&E attract newly qualified registered nurses? *Accident and Emergency Nursing*, *14*(2), 71–77. https://doi.org/10.1016/j.aaen.2005.11.008

Darawad, M. W., Abu Feddeh, S., & Saleh, A. M. (2022). Factors affecting the caring performance of newly graduated Nurses' working in critical care units. *International Journal of Nursing Practice*, *28*(2), e13047. https://doi.org/10.1111/ijn.13047

DeGrande, H., Liu, F., Greene, P., & Stankus, J.-A. (2018). The experiences of new graduate nurses hired and retained in adult intensive care units. *Intensive and Critical Care Nursing*, *49*, 72–78. https://doi.org/10.1016/j.iccn.2018.08.005

Della Ratta, C. (2016). Challenging graduate nurses' transition: Care of the deteriorating patient. *Journal of Clinical Nursing*, *25*(19–20), 3036–3048. https://doi.org/10.1111/jocn.13358

Dinmohammadi, M., Peyrovi, H., & Mehrdad, N. (2013). Concept Analysis of Professional Socialization in Nursing. *Nursing Forum*, *48*(1), 26–34. https://doi.org/10.1111/nuf.12006

Dirks, J. L. (2021). Alternative Approaches to Mentoring. *Critical Care Nurse*, *41*(1), e9–e16. https://doi.org/10.4037/ccn2021789

Draucker, C. B., Martsolf, D. S., & Poole, C. (2009). Developing Distress Protocols for Research on Sensitive Topics. *Archives of Psychiatric Nursing*, *23*(5), 343–350. https://doi.org/10.1016/j.apnu.2008.10.008

Drummond, A., Chochinov, A., Johnson, K., Kapur, A., Lim, R., & Ovens, H. (2021, August 5). *CAEP position statement on violence in the emergency department*. https://link.springer.com/10.1007/s43678-021-00182-z

Duchscher, J. B., & Windey, M. (2018). Stages of Transition and Transition Shock. *Journal for Nurses in Professional Development*, *34*(4), 228–232. https://doi.org/10.1097/NND.0000000000000461

Duchscher, J. E. (2008). A Process of Becoming: The Stages of New Nursing Graduate Professional Role Transition. *The Journal of Continuing Education in Nursing*, *39*(10), 441–450. https://doi.org/10.3928/00220124-20081001-03

Duchscher, J. E. (2009). Transition shock: The initial stage of role adaptation for newly graduated Registered Nurses. *Journal of Advanced Nursing*, *65*(5), 1103–1113. https://doi.org/10.1111/j.1365-2648.2008.04898.x

Duchscher, J. E., & Painter, S. (2021). Proceed With Caution: Integrating Newly Graduated Nurses into an Emergency Department. *Advanced Emergency Nursing Journal*, *43*(1), 53–70. https://doi.org/10.1097/TME.0000000000000334

Edward, K., Ousey, K., Playle, J., & Giandinoto, J.-A. (2017). Are new nurses work ready – The impact of preceptorship. An integrative systematic review. *Journal of Professional Nursing*, *33*(5), 326–333. https://doi.org/10.1016/j.profnurs.2017.03.003

El Haddad, M., Moxham, L., & Broadbent, M. (2017). Graduate nurse practice readiness: A conceptual understanding of an age old debate. *Collegian*, *24*(4), 391–396. https://doi.org/10.1016/j.colegn.2016.08.004

Elias, C. E., & Day, T. (2020). Experiences of Newly Qualified Nurses in Critical Care: A qualitative systematic review. *Journal of the Intensive Care Society*, *21*(4), 334–343. https://doi.org/10.1177/1751143720926794

Fairbrother, G., Jones, A., & Rivas, K. (2010). Changing model of nursing care from individual patient allocation to team nursing in the acute inpatient environment. *Contemporary Nurse*, *35*(2), 202–220. https://doi.org/10.5172/conu.2010.35.2.202

Farnell, S., & Dawson, D. (2006). 'It's not like the wards'. Experiences of nurses new to critical care: A qualitative study. *International Journal of Nursing Studies*, *43*(3), 319–331. https://doi.org/10.1016/j.ijnurstu.2005.04.007

Feddeh, S. A., & Darawad, M. W. (2020). Correlates to Work-Related Stress of Newly-graduated Nurses in Critical Care Units. *International Journal of Caring Sciences*, *13*(1), 507–516.

Feng, R.-F., & Tsai, Y.-F. (2012). Socialisation of new graduate nurses to practising nurses. *Journal of Clinical Nursing*, *21*(13–14), 2064–2071. https://doi.org/10.1111/j.1365-2702.2011.03992.x

Ferguson, L., & Cioffi, J. (2011). Team nursing: Experiences of nurse manager in acute care settings. *Australian Journal of Advanced Nursing*, *28*(4), 5–11.

Fernandez, R., Johnson, M., Tran, D. T., & Miranda, C. (2012). Models of care in nursing: A systematic review. *International Journal of Evidence-Based Healthcare*, *10*(4), 324–337. https://doi.org/10.1111/j.1744-1609.2012.00287.x

Ferri, P., Stifani, S., Accoto, A., Bonetti, L., Rubbi, I., & Di Lorenzo, R. (2020). Violence Against Nurses in the Triage Area: A Mixed-Methods Study. *Journal of Emergency Nursing*, *46*(3), 384–397. https://doi.org/10.1016/j.jen.2020.02.013

Fink, R., Krugman, M., Casey, K., & Goode, C. (2008). The graduate nurse experience: Qualitative residency program outcomes. *Journal of Nursing Administration*, *38*(7), 341–348. https://doi.org/10.1097/01.NNA.0000323943.82016.48

Fitzgerald, A. (2020). Professional identity: A concept analysis. *Nursing Forum*, *55*(3), 447–472. https://doi.org/10.1111/nuf.12450

Friedman, M. I., Cooper, A. H., Click, E., & Fitzpatrick, J. J. (2011). Specialized New Graduate RN Critical Care Orientation: Retention and Financial Impact. *Nursing Economics*, *29*(1), 7–14.

Fukada, M. (2018). Nursing Competency: Definition, Structure and Development. *Yonago Acta Medica*, *61*(1), 001–007. https://doi.org/10.33160/yam.2018.03.001

Fukuti, P., Uchôa, C. L. M., Mazzoco, M. F., Corchs, F., Kamitsuji, C. S., Rossi, L. D., Rios, I. C., Lancman, S., Bonfa, E., Barros-Filho, T. E. P. de, & Miguel, E. C. (2020). How Institutions Can Protect the Mental Health and Psychosocial Well-Being of Their Healthcare Workers in the Current COVID-19 Pandemic. *Clinics (Sao Paulo, Brazil)*, *75*, e1963. https://doi.org/10.6061/clinics/2020/e1963

García-Martín, M., Roman, P., Rodriguez-Arrastia, M., Diaz-Cortes, M. del M., Soriano-Martin, P. J., & Ropero-Padilla, C. (2021). Novice nurse's transitioning to emergency nurse during COVID-19 pandemic: A qualitative study. *Journal of Nursing Management*, *29*(2), 258–267. https://doi.org/10.1111/jonm.13148

Godfrey, N., & Young, E. (2020). Professional identity. In J. F. Giddens (Ed.), *Concepts of nursing practice* (3rd ed.). Elsevier Publishing.

Gorman, L. L., & McDowell, J. R. S. (2018). Identifying the needs of critical and acute cardiac care nurses within the first two years of practice in Egypt using a nominal group technique. *Nurse Education in Practice*, *28*, 127–134. https://doi.org/10.1016/j.nepr.2017.10.005

Graf, A. C., Jacob, E., Twigg, D., & Nattabi, B. (2020). Contemporary nursing graduates' transition to practice: A critical review of transition models. *Journal of Clinical Nursing*, *29*(15–16), 3097–3107. https://doi.org/10.1111/jocn.15234

Gray, L. M., Wong-Wylie, G., Rempel, G. R., & Cook, K. (2020). Expanding Qualitative Research Interviewing Strategies: Zoom Video Communications. *The Qualitative Report*, *25*(5), 1292–1301.

Greenway, K., Butt, G., & Walthall, H. (2019). What is a theory-practice gap? An exploration of the concept. *Nurse Education in Practice*, *34*, 1–6. https://doi.org/10.1016/j.nepr.2018.10.005

Haggerty, C., Holloway, K., & Wilson, D. (2012). Entry to nursing practice preceptor education and support: Could we do it better? *Nursing Praxis in New Zealand*, *28*(1), 30–40.

Halcomb, E. J., Salamonson, Y., Raymond, D., & Knox, N. (2012). Graduating nursing students' perceived preparedness for working in critical care areas. *Journal of Advanced Nursing (John Wiley & Sons, Inc.)*, *68*(10), 2229–2236. https://doi.org/10.1111/j.1365-2648.2011.05911.x

Hallaran, A., Edge, D., Almost, J., & Tregunno, D. (2023). New Nurses' Perceptions on Transition to Practice: A Thematic Analysis. *Canadian Journal of Nursing Research*, *55*(1), 126–136. https://doi.org/10.1177/08445621221074872

Hatzenbuhler, N. J., & Klein, J. E. (2019). Educational Preparation for Clinical Practice: Reflections of Newly Graduated RNs. *Nurse Educator*, *44*(2), 93. https://doi.org/10.1097/NNE.0000000000000550

Hawkins, N., Jeong, S., & Smith, T. (2019). Coming ready or not! An integrative review examining new graduate nurses' transition in acute care. *International Journal of Nursing Practice*, *25*(3), e12714. https://doi.org/10.1111/ijn.12714

Health Quality Ontario. (2016). *Under Pressure: Emergency department performance in Ontario* (p. 43). Government of Ontario.

Hickerson, K. A., Taylor, L. A., & Terhaar, M. F. (2016). The Preparation–Practice Gap: An Integrative Literature Review. *The Journal of Continuing Education in Nursing*, *47*(1), 17–23. https://doi.org/10.3928/00220124-20151230-06

Hogarth, K. M., Beattie, J., & Morphet, J. (2016). Nurses' attitudes towards the reporting of violence in the emergency department. *Australasian Emergency Nursing Journal*, *19*(2), 75–81. https://doi.org/10.1016/j.aenj.2015.03.006

Hunter, K., & Cook, C. (2018). Role-modelling and the hidden curriculum: New graduate nurses' professional socialisation. *Journal of Clinical Nursing*, *27*(15–16), 3157–3170. https://doi.org/10.1111/jocn.14510

Hussein, R., Everett, B., Ramjan, L. M., Hu, W., & Salamonson, Y. (2017). New graduate nurses' experiences in a clinical specialty: A follow up study of newcomer perceptions of transitional support. *BMC Nursing*, *16*, 42. https://doi.org/10.1186/s12912-017-0236-0

Hussein, R., Salamonson, Y., Everett, B., Hu, W., & Ramjan, L. M. (2019a). Good clinical support transforms the experience of new graduates and promotes quality care: A qualitative study. *Journal of Nursing Management*, *27*(8), 1809–1817. https://doi.org/10.1111/jonm.12880

Hussein, R., Salamonson, Y., Hu, W., & Everett, B. (2019b). Clinical supervision and ward orientation predict new graduate nurses' intention to work in critical care: Findings from a prospective observational study. *Australian Critical Care*, *32*(5), 397–402. https://doi.org/10.1016/j.aucc.2018.09.003

Inayat, S., Younas, A., Sundus, A., & Khan, F. H. (2021). Nursing students' preparedness and practice in critical care settings: A scoping review. *Journal of Professional Nursing*, *37*(1), 122–134. https://doi.org/10.1016/j.profnurs.2020.06.007

Innes, T., & Calleja, P. (2018). Transition support for new graduate and novice nurses in critical care settings: An integrative review of the literature. *Nurse Education in Practice*, *30*, 62–72. https://doi.org/10.1016/j.nepr.2018.03.001

Jarvis-Selinger, S., Pratt, D. D., & Regehr, G. (2012). Competency Is Not Enough: Integrating Identity Formation into the Medical Education Discourse. *Academic Medicine*, *87*(9), 1185. https://doi.org/10.1097/ACM.0b013e3182604968

Jiaru, J., Yanxue, Z., & Wennv, H. (2023). Incidence of stress among emergency nurses: A systematic review and meta-analysis. *Medicine*, *102*(4), e31963. https://doi.org/10.1097/MD.0000000000031963

Jones, T., Shaban, R. Z., & Creedy, D. K. (2015). Practice standards for emergency nursing: An international review. *Australasian Emergency Nursing Journal*, *18*(4), 190–203. https://doi.org/10.1016/j.aenj.2015.08.002

Kaddoura, M. A. (2013). The Effect of Preceptor Behavior on the Critical Thinking Skills of New Graduate Nurses in the Intensive Care Unit. *The Journal of Continuing Education in*

Nursing, *44*(11), 488–495. http://dx.doi.org.libaccess.lib.mcmaster.ca/10.3928/00220124-20130816-21

Kallio, H., Pietilä, A.-M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing*, *72*(12), 2954–2965. https://doi.org/10.1111/jan.13031

Kalu, M. E. (2019). Using Emphasis-Purposeful Sampling-Phenomenon of Interest–Context (EPPiC) Framework to Reflect on Two Qualitative Research Designs and Questions: A Reflective Process. *The Qualitative Report*, *24*(10), 2524–2535.

Katcher, B. S. (2006). *MEDLINE: A Guide to Effective Searching in PubMed and Other Interfaces*. Ashbury Press.

Ke, Y.-T., Kuo, C.-C., & Hung, C.-H. (2017). The effects of nursing preceptorship on new nurses' competence, professional socialization, job satisfaction and retention: A systematic review. *Journal of Advanced Nursing*, *73*(10), 2296–2305. https://doi.org/10.1111/jan.13317

King, A., Long, L., & Lisy, K. (2015). Effectiveness of team nursing compared with total patient care on staff wellbeing when organizing nursing work in acute care wards: A systematic review. *JBI Evidence Synthesis*, *13*(11), 128. https://doi.org/10.11124/jbisrir-2015-2428

Kralik, D., Visentin, K., & Van Loon, A. (2006). Transition: A literature review. *Journal of Advanced Nursing*, *55*(3), 320–329. https://doi.org/10.1111/j.1365-2648.2006.03899.x

Kramer, M. (1974). REALITY SHOCK: Why Nurses Leave Nursing. *AJN The American Journal of Nursing*, *75*(5), 891.

Kramer, M., Maguire, P., Halfer, D., Brewer, B., & Schmalenberg, C. (2011). Impact of Residency Programs on Professional Socialization of Newly Licensed Registered Nurses. *Western Journal of Nursing Research*, *35*(4), 459–496. https://doi.org/10.1177/0193945911415555

Krugman, M., Bretschneider, J., Horn, P., Krsek, C., Moutafis, R., & Smith, M. (2006). The National Post-Baccalaureate Graduate Nurse Residency Program: A Model for Excellence in Transition to Practice. *Journal for Nurses in Staff Development*, *22*(4), 196–205. https://doi.org/10.1097/00124645-200607000-00008

Lalonde, M., & Hall, L. M. (2017). Preceptor characteristics and the socialization outcomes of new graduate nurses during a preceptorship programme. *Nursing Open*, *4*(1), 24–31. https://doi.org/10.1002/nop2.58

Lalonde, M., Smith, C. A., Wong, S., Bentz, J. A., & Vanderspank-Wright, B. (2021). Part 2: New Graduate Nurse Transition into the Intensive Care Unit: Summative Insights from a Longitudinal Mixed-Methods Study. *Research and Theory for Nursing Practice*, *35*(4). https://doi.org/10.1891/RTNP-D-21-00014

Larrabee, J. H., Janney, M. A., Ostrow, C. L., Withrow, M. L., Hobbs, G. R., & Burant, C. (2003). Predicting Registered Nurse Job Satisfaction and Intent to Leave: *JONA: The Journal of Nursing Administration*, *33*(5), 271–283. https://doi.org/10.1097/00005110-200305000-00003

Laschinger, H. K. S., Cummings, G., Leiter, M., Wong, C., MacPhee, M., Ritchie, J., Wolff, A., Regan, S., Rhéaume-Brüning, A., Jeffs, L., Young-Ritchie, C., Grinspun, D., Gurnham, M. E., Foster, B., Huckstep, S., Ruffolo, M., Shamian, J., Burkoski, V., Wood, K., &

Read, E. (2016). Starting Out: A time-lagged study of new graduate nurses' transition to practice. *International Journal of Nursing Studies*, *57*, 82–95. https://doi.org/10.1016/j.ijnurstu.2016.01.005

Laschinger, H. K. S., Grau, A. L., Finegan, J., & Wilk, P. (2010). New graduate nurses' experiences of bullying and burnout in hospital settings: Bullying and burnout in new graduate nurses. *Journal of Advanced Nursing*, *66*(12), 2732–2742. https://doi.org/10.1111/j.1365-2648.2010.05420.x

Laschinger, H. K. S., Wong, C. A., & Grau, A. L. (2013). Authentic leadership, empowerment and burnout: A comparison in new graduates and experienced nurses. *Journal of Nursing Management*, *21*(3), 541–552. https://doi.org/10.1111/j.1365-2834.2012.01375.x

Leathart, A. J. (1994). Communication and socialisation (2): Perceptions of neophyte ITU nurses. *Intensive and Critical Care Nursing*, *10*(2), 142–154. https://doi.org/10.1016/0964-3397(94)90011-6

Lewis-Pierre, L. T., Amankwaa, L., Kovacich, J., & Hollis, L. (2014). Workplace Readiness of New ICU Nurses: A Grounded Theory Study. *Global Journal of Human-Social Science*, *14*(2), 47–52.

Locke, L. A. (2019). Typical Areas of Confusion for Students New to Qualitative Research. In K. K. Strunk & L. A. Locke (Eds.), *Research Methods for Social Justice and Equity in Education* (pp. 117–123). Springer International Publishing. https://doi.org/10.1007/978-3-030-05900-2_10

Luciani, M., Orr, E., Campbell, K., Nguyen, L., Ausili, D., & Jack, S. M. (2019). How to Design a Qualitative Health Research Study. Part 2: Data Generation and Analysis Considerations. *Professioni Infermieristiche*, *72*(3), 221–231.

Maneval, R., Hepburn, M., Brooks, C., Tamburi, M., Di Nonno Chin, S., Prado-Inzerillo, M., Haghenbeck-Nunnink, K. T., & Flaum, S. J. (2021). Enhancing the undergraduate nursing education experience with clinical elective courses. *Journal of Professional Nursing*, *37*(2), 366–372. https://doi.org/10.1016/j.profnurs.2020.04.014

McCalla, -Graham James A., & De Gagne, J. C. (2015). The Lived Experience of New Graduate Nurses Working in an Acute Care Setting. *The Journal of Continuing Education in Nursing*, *46*(3), 122–128. https://doi.org/10.3928/00220124-20150220-17

McCann, C. M., Beddoe, E., McCormick, K., Huggard, P., Kedge, S., Adamson, C., & Huggard, J. (2013). Resilience in the Health Professions: A review of recent literature. *International Journal of Wellbeing*, *3*(1), Article 1. https://www.internationaljournalofwellbeing.org/index.php/ijow/article/view/153

McDermid, F., Judy Mannix, & Peters, K. (2020). Factors contributing to high turnover rates of emergency nurses: A review of the literature. *Australian Critical Care*, *33*(4), 390–396. https://doi.org/10.1016/j.aucc.2019.09.002

McGrath, M. (2008). The challenges of caring in a technological environment: Critical care nurses' experiences. *Journal of Clinical Nursing*, *17*(8), 1096–1104. https://doi.org/10.1111/j.1365-2702.2007.02050.x

McKenna, L., & Newton, J. M. (2008). After the graduate year: A phenomenological exploration of how new nurses develop their knowledge and skill over the first 18 months following graduation. *Australian Journal of Advanced Nursing*, *25*(4), 9–16.

Meghani, S. R., & Sajwani, S. (2013). Are we pushing the graduate nurses too fast in critical care areas? *I-Manager's Journal on Nursing*, *3*(1), 6–12.

Ministry of Health and Long-Term Care. (2009). Classification of hospitals. Government of Ontario. https://www.ontario.ca/page/classification-hospitals

Ministry of Health and Long-Term Care. (2021a). *2021/22 Guidelines for Participation in the Nursing Graduate Guarantee Program*. Government of Ontario. https://www.health.gov.on.ca/en/pro/programs/hhrsd/nursing/docs/NGG_Guidelines.pdf

Ministry of Health and Long-Term Care. (2021b). *Extern Program: Guide for Health Care Organizations*. Queen's Printer for Ontario. https://www.oha.com/Bulletins/MOH%20Extern%20Program%20Guide%20for%20HCOs%20(2021-01-08)%20173-2021-01.pdf

Mirza, N., Manankil-Rankin, L., Prentice, D., Hagerman, L.-A., & Draenos, C. (2019). Practice readiness of new nursing graduates: A concept analysis. *Nurse Education in Practice*, *37*, 68–74. https://doi.org/10.1016/j.nepr.2019.04.009

Missen, K., McKenna, L., & Beauchamp, A. (2014). Satisfaction of newly graduated nurses enrolled in transition-to-practice programmes in their first year of employment: A systematic review. *Journal of Advanced Nursing*, *70*(11), 2419–2433. https://doi.org/10.1111/jan.12464

Missen, K., McKenna, L., & Beauchamp, A. (2016). Registered nurses' perceptions of new nursing graduates' clinical competence: A systematic integrative review: Nursing graduates' clinical competence. *Nursing & Health Sciences*, *18*(2), 143–153. https://doi.org/10.1111/nhs.12249

Mollerup, A., & Mortensen, P. S. (2004). Nurses' perceptions of their own level of competence. *Connect: The World of Critical Care Nursing*, *3*(3), 70–73. https://doi.org/10.1891/1748-6254.3.3.70

Monaghan, T. (2015). A critical analysis of the literature and theoretical perspectives on theory–practice gap amongst newly qualified nurses within the United Kingdom. *Nurse Education Today*, *35*(8), e1–e7. https://doi.org/10.1016/j.nedt.2015.03.006

Mooney, M. (2007). Professional socialization: The key to survival as a newly qualified nurse. *International Journal of Nursing Practice*, *13*(2), 75–80. https://doi.org/10.1111/j.1440-172X.2007.00617.x

Murray, M., Sundin, D., & Cope, V. (2019a). New graduate nurses' clinical safety knowledge by the numbers. *Journal of Nursing Management*, *27*(7), 1384–1390. https://doi.org/10.1111/jonm.12819

Murray, M., Sundin, D., & Cope, V. (2019b). New graduate nurses' understanding and attitudes about patient safety upon transition to practice. *Journal of Clinical Nursing*. https://doi.org/10.1111/jocn.14839

Murray, M., Sundin, D., & Cope, V. (2020). A Mixed-Methods Study on Patient Safety Insights of New Graduate Registered Nurses. *Journal of Nursing Care Quality*, *35*(3), 258–264. https://doi.org/10.1097/NCQ.0000000000000443

Myrick, F., Yonge, O., & Billay, D. (2010). Preceptorship and practical wisdom: A process of engaging in authentic nursing practice. *Nurse Education in Practice*, *10*(2), 82–87. https://doi.org/10.1016/j.nepr.2009.03.018

Naderifar, M., Goli, H., & Ghaljaie, F. (2017). Snowball Sampling: A Purposeful Method of Sampling in Qualitative Research. *Strides in Development of Medical Education*, *14*(3). https://doi.org/10.5812/sdme.67670

National Council of State Boards of Nursing, Inc. (2018). *2017 RN Practice Analysis: Linking the NCLEX-RN Examination to Practice (U.S and Canada)* (Research Brief 72; p. 276). National Council of State Boards of Nursing. https://www.ncsbn.org/17_RN_US_Canada_Practice_Analysis.pdf

National Council of State Boards of Nursing, Inc. (2022). *2021 RN Practice Analysis: Linking the NCLEX-RN Examination to Practice (U.S. and Canada)* (81; Practice Analyses, pp. 151–182). https://www.ncsbn.org/exams-research/2021-rn-practice-analysis-linking-the-nclexrn-examination-to-practice

National Emergency Nurses Association. (2018). *Emergency Nursing: Scope and Standards of Canadian Practice*. https://nena.ca/w/wp-content/uploads/2018/11/Standards-of-ED-Nursing-Practice-2018.pdf

Nour, V., & Williams, A. M. (2019). "Theory Becoming Alive": The Learning Transition Process of Newly Graduated Nurses in Canada. *Canadian Journal of Nursing Research*, *51*(1), 6–13. https://doi.org/10.1177/0844562118771832

O'Kane, C. E. (2012). Newly qualified nurses' experiences in the intensive care unit. *Nursing in Critical Care*, *17*(1), 44–51. https://doi.org/10.1111/j.1478-5153.2011.00473.x

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and Policy in Mental Health*, *42*(5), 533–544. https://doi.org/10.1007/s10488-013-0528-y

Parson, L. (2019). Considering Positionality: The Ethics of Conducting Research with Marginalized Groups. In K. K. Strunk & L. A. Locke (Eds.), *Research Methods for Social Justice and Equity in Education* (pp. 15–32). Springer International Publishing. https://doi.org/10.1007/978-3-030-05900-2_2

Patrick, A., Laschinger, H. K. S., Wong, C., & Finegan, J. (2011). Developing and testing a new measure of staff nurse clinical leadership: The clinical leadership survey. *Journal of Nursing Management*, *19*(4), 449–460. https://doi.org/10.1111/j.1365-2834.2011.01238.x

Patterson, B., Bayley, E. W., Burnell, K., & Rhoads, J. (2010). Orientation to Emergency Nursing: Perceptions of New Graduate Nurses. *Journal of Emergency Nursing*, *36*(3), 203–211. https://doi.org/10.1016/j.jen.2009.07.006

Pfaff, K. A., Baxter, P. E., Jack, S. M., & Ploeg, J. (2014). Exploring new graduate nurse confidence in interprofessional collaboration: A mixed methods study. *International Journal of Nursing Studies*, *51*(8), 1142–1152. https://doi.org/10.1016/j.ijnurstu.2014.01.001

Phillippi, J., & Lauderdale, J. (2018). A Guide to Field Notes for Qualitative Research: Context and Conversation. *Qualitative Health Research*, *28*(3), 381–388. https://doi.org/10.1177/1049732317697102

Phillips, K., Knowlton, M., & Riseden, J. (2022). Emergency Department Nursing Burnout and Resilience. *Advanced Emergency Nursing Journal*, *44*(1), 54. https://doi.org/10.1097/TME.0000000000000391

Pillow, W. (2010). Dangerous reflexivity: Rigour, responsibility and reflexivity in qualitative research. In P. Thomson & M. Walker (Eds.), *The Routledge Doctoral Student's Companion* (pp. 270–282). Routledge Taylor & Francis Group.

Powers, K., Herron, E. K., & Pagel, J. (2019). Nurse Preceptor Role in New Graduate Nurses' Transition to Practice. *Dimensions of Critical Care Nursing*, *38*(3), 131–136. https://doi.org/10.1097/DCC.0000000000000354

Price, S. L., McGillis Hall, L., Murphy, G. T., & Pierce, B. (2018). Evolving career choice narratives of new graduate nurses. *Nurse Education in Practice*, *28*, 86–91. https://doi.org/10.1016/j.nepr.2017.10.007

Proehl, J. A. (2002). Developing Emergency Nursing Competence. *Nursing Clinics of North America*, *37*(1), 89–96. https://doi.org/10.1016/s0029-6465(03)00085-9

Quek, G. J. H., & Shorey, S. (2018). Perceptions, Experiences, and Needs of Nursing Preceptors and Their Preceptees on Preceptorship: An Integrative Review. *Journal of Professional Nursing*, *34*(5), 417–428. https://doi.org/10.1016/j.profnurs.2018.05.003

Ramsey, Z., Palter, J. S., Hardwick, J., Moskoff, J., Christian, E. L., & Bailitz, J. (2018). Decreased Nursing Staffing Adversely Affects Emergency Department Throughput Metrics. *Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health*, *19*(3). https://doi.org/10.5811/westjem.2018.1.36327

Rasmussen, P., Henderson, A., Andrew, N., & Conroy, T. (2018). Factors Influencing Registered Nurses' Perceptions of Their Professional Identity: An Integrative Literature Review. *The Journal of Continuing Education in Nursing*, *49*(5), 225–232. https://doi.org/10.3928/00220124-20180417-08

Recio-Saucedo, A., Pope, C., Dall'Ora, C., Griffiths, P., Jones, J., Crouch, R., & Drennan, J. (2015). Safe staffing for nursing in emergency departments: Evidence review. *Emergency Medicine Journal*, *32*(11), 888–894. https://doi.org/10.1136/emermed-2015-204936

Reddish MV & Kaplan LJ. (2007). When are new graduate nurses competent in the intensive care unit? *Critical Care Nursing Quarterly*, *30*(3), 199–205. https://doi.org/10.1097/01.cnq.0000278919.29444.b3

Registered Nurses' Association of Ontario. (2019). *RN/NP Workforce Backgrounder*. Registered Nurses' Association of Ontario. https://rnao.ca/sites/rnao-ca/files/RNAO_RN_NP_HR_Backgrounder.pdf

Reising, D. L. (2002). Early socialization of new critical care nurses. *American Journal of Critical Care*, *11*(1), 19–26.

Robinson, O. C. (2014). Sampling in Interview-Based Qualitative Research: A Theoretical and Practical Guide. *Qualitative Research in Psychology*, *11*(1), 25–41. https://doi.org/10.1080/14780887.2013.801543

Romyn, D. M., Linton, N., Giblin, C., Hendrickson, B., Limacher, L. H., Murray, C., Nordstrom, P., Thauberger, G., Vosburgh, D., Vye-Rogers, L., Weidner, A., & Zimmel, C. M. (2009). Successful Transition of the New Graduate Nurse. *International Journal of Nursing Education Scholarship*, *6*(1). https://doi.org/10.2202/1548-923X.1802

Roncallo, H. R., Ray, J. M., Kulacz, R. C., Yang, T. J., Chmura, C., Evans, L. V., & Wong, A. H. (2020). An Interprofessional Simulation-Based Orientation Program for Transitioning Novice Nurses to Critical Care Roles in the Emergency Department: Pilot Implementation and Evaluation. *The Joint Commission Journal on Quality and Patient Safety*, *46*(11), 640–649. https://doi.org/10.1016/j.jcjq.2020.08.005

Rosi, I. M., Contiguglia, A., Millama, K. R., & Rancati, S. (2020). Newly graduated nurses' experiences of horizontal violence. *Nursing Ethics*, *27*(7), 1556–1568. https://doi.org/10.1177/0969733020929063

Rush, K. L., Janke, R., Duchscher, J. E., Phillips, R., & Kaur, S. (2019). Best practices of formal new graduate transition programs: An integrative review. *International Journal of Nursing Studies*, *94*, 139–158. https://doi.org/10.1016/j.ijnurstu.2019.02.010

Ruth-Sahd, L. A. (2023). Nurse Externships: Exploring Innovations to Recruit and Mentor Clinical Adjunct Faculty. *Journal of Nursing Education*, *62*(12), 728–732. https://www-doi-org.libaccess.lib.mcmaster.ca/10.3928/01484834-20231006-01

Rutherford-Hemming, T., Herrington, A., & Newsome, L. (2022). The Use of Simulation-Based Education with New Graduate Nurses in Emergency Department and Acute Care Settings: A Scoping Review. *The Journal of Continuing Education in Nursing*, *53*(7), 301–307. https://doi.org/10.3928/00220124-20220603-05

Saghafi, F., Hardy, J., & Hillege, S. (2012). New graduate nurses' experiences of interactions in the critical care unit. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, *42*(1), 20–27. https://doi.org/10.5172/conu.2012.42.1.20

Salonen, A. H., Kaunonen, M., Meretoja, R., & Tarkka, M.-T. (2007). Competence profiles of recently registered nurses working in intensive and emergency settings. *Journal of Nursing Management*, *15*(8), 792–800. https://doi.org/10.1111/j.1365-2934.2007.00768.x

Salt, J., Cummings, G. G., & Profetto-McGrath, J. (2008). Increasing Retention of New Graduate Nurses: A Systematic Review of Interventions by Healthcare Organizations. *JONA: The Journal of Nursing Administration*, *38*(6), 287–296. https://doi.org/10.1097/01.NNA.0000312788.88093.2e

Sanjari, M., Bahramnezhad, F., Fomani, F. K., Shoghi, M., & Cheraghi, M. A. (2014). Ethical challenges of researchers in qualitative studies: The necessity to develop a specific guideline. *Journal of Medical Ethics and History of Medicine*, *7*. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4263394/

Sawatzky, J.-A. V., & Enns, C. L. (2012). Exploring the key predictors of retention in emergency nurses. *Journal of Nursing Management*, *20*(5), 696–707. https://doi.org/10.1111/j.1365-2834.2012.01355.x

Scott, E. S., Keehner Engelke, M., & Swanson, M. (2008). New graduate nurse transitioning: Necessary or nice? *Applied Nursing Research*, *21*(2), 75–83. https://doi.org/10.1016/j.apnr.2006.12.002

Scott Tilley, D. (2008). Competency in Nursing: A Concept Analysis. *Journal of Continuing Education in Nursing*, *39*, 58–64; quiz 65. https://doi.org/10.3928/00220124-20080201-12

Serafin, L., Pawlak, N., Strząska-Kliś, Z., Bobrowska, A., & Czarkowska-Pączek, B. (2021). Novice nurses' readiness to practice in an ICU: A qualitative study. *Nursing in Critical Care*, *n/a*(n/a). https://doi.org/10.1111/nicc.12603

Silva, R. C. da, & Ferreira, M. de A. (2011). Technology in an intensive care unit: Delineation of a figure-type of the nurse. *Acta Paulista de Enfermagem*, *24*(5), 617–623. https://doi.org/10.1590/S0103-21002011000500004

Søvold, L. E., Naslund, J. A., Kousoulis, A. A., Saxena, S., Qoronfleh, M. W., Grobler, C., & Münter, L. (2021). Prioritizing the Mental Health and Well-Being of Healthcare Workers: An Urgent Global Public Health Priority. *Frontiers in Public Health*, *9*. https://www.frontiersin.org/articles/10.3389/fpubh.2021.679397

Spence Laschinger, H. K., Wong, C., Read, E., Cummings, G., Leiter, M., Macphee, M., Regan, S., Rhéaume-Brüning, A., Ritchie, J., Burkoski, V., Grinspun, D., Gurnham, M. E., Huckstep, S., Jeffs, L., Macdonald-Rencz, S., Ruffolo, M., Shamian, J., Wolff, A., Young-Ritchie, C., & Wood, K. (2019). Predictors of new graduate nurses' health over the first 4 years of practice. *Nursing Open*, *6*(2), 245–259. https://doi.org/10.1002/nop2.231

Spence Laschinger, H. K., Zhu, J., & Read, E. (2016). New nurses' perceptions of professional practice behaviours, quality of care, job satisfaction and career retention. *Journal of Nursing Management*, *24*(5), 656–665. https://doi.org/10.1111/jonm.12370

Sterner, A., Ramstrand, N., Nyström, M., Hagiwara, M. A., & Palmér, L. (2018). Novice nurses' perceptions of acute situations – A phenomenographic study. *International Emergency Nursing*, *40*, 23–28. https://doi.org/10.1016/j.ienj.2017.12.001

Stewart, C. (2021). Understanding new nurses' learning experiences in intensive care. *Intensive & Critical Care Nursing*, *67*. https://doi.org/10.1016/j.iccn.2021.103094

Theisen, J. L., & Sandau, K. E. (2013). Competency of New Graduate Nurses: A Review of Their Weaknesses and Strategies for Success. *The Journal of Continuing Education in Nursing*, *44*(9), 406–414. http://dx.doi.org.libaccess.lib.mcmaster.ca/10.3928/00220124-20130617-38

Thompson, G., Austin, W., & Profetto-McGrath, J. (2010). Novice nurses' first death in critical care. *Dynamics*, *21*(4), 26–37.

Thorne, S. (2016). *Interpretive Description: Qualitative Research for Applied Practice*. Taylor & Francis Group. http://ebookcentral.proquest.com/lib/mcmu/detail.action?docID=4511832

Thorne, S. E. (2020). Applied Interpretive Approaches. In P. Leavy (Ed.), *The Oxford Handbook of Qualitative Research* (pp. 142–166). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190847388.013.14

Thorne, S., Kirkham, S. R., & O'Flynn-Magee, K. (2004). The Analytic Challenge in Interpretive Description. *International Journal of Qualitative Methods*, *3*(1), 1–11. https://doi.org/10.1177/160940690400300101

Tracey, J. M., & McGowan, I. W. (2015). Preceptors' views on their role in supporting newly qualified nurses. *British Journal of Nursing*, *24*(20), 998–1001. https://doi.org/10.12968/bjon.2015.24.20.998

Tubbert, S. J. (2016). Resiliency in Emergency Nurses. *Journal of Emergency Nursing*, *42*(1), 47–52. https://doi.org/10.1016/j.jen.2015.05.016

Ulupinar, S., & Aydogan, Y. (2021). New graduate nurses' satisfaction, adaptation and intention to leave in their first year: A descriptive study. *Journal of Nursing Management*, *29*(6), 1830–1840. https://doi.org/10.1111/jonm.13296

Valdez, A. M. (2008). Transitioning from Novice to Competent: What Can We Learn from the Literature About Graduate Nurses in the Emergency Setting? *Journal of Emergency Nursing*, *34*(5), 435–440. https://doi.org/10.1016/j.jen.2007.07.008

Valizadeh, S., Borimnejad, L., Rahmani, A., Gholizadeh, L., & Shahbazi, S. (2016). Challenges of the preceptors working with new nurses: A phenomenological research study. *Nurse Education Today*, *44*, 92–97. https://doi.org/10.1016/j.nedt.2016.05.021

Van Camp, J., & Chappy, S. (2017). The Effectiveness of Nurse Residency Programs on Retention: A Systematic Review. *AORN Journal*, *106*(2), 128–144. https://doi.org/10.1016/j.aorn.2017.06.003

van Rooyen, D. R. M., Jordan, P. J., ten Ham-Baloyi, W., & Caka, E. M. (2018). A comprehensive literature review of guidelines facilitating transition of newly graduated nurses to professional nurses. *Nurse Education in Practice*, *30*, 35–41. https://doi.org/10.1016/j.nepr.2018.02.010

Vanderspank-Wright, B., Lalonde, M., Smith, C. A., Wong, S., & Bentz, J. A. (2019). New Graduate Nurse Transition into the Intensive Care Unit: Qualitative Insights from a Longitudinal Study—Part 1. *Research & Theory for Nursing Practice*, *33*(4), 428–444. https://doi.org/10.1891/1541-6577.33.4.428

Vogelpohl, D. A., Rice, S. K., Edwards, M. E., & Bork, C. E. (2013). New Graduate Nurses' Perception of the Workplace: Have They Experienced Bullying? *Journal of Professional Nursing*, *29*(6), 414–422. https://doi.org/10.1016/j.profnurs.2012.10.008

Wakefield, E., Innes, K., Dix, S., & Brand, G. (2023). Belonging in high acuity settings: What is needed for newly graduated registered nurses to successfully transition? A qualitative systematic review. *Nurse Education Today*, *121*, 105686. https://doi.org/10.1016/j.nedt.2022.105686

Walker, A., Costa, B. M., Foster, A. M., & de Bruin, R. L. (2016). Transition and integration experiences of Australian graduate nurses: A qualitative systematic review. *Collegian*, *24*(5), 505–512. https://doi.org/10.1016/j.colegn.2016.10.004

Ward, A., & McComb, S. (2017). Precepting: A literature review. *Journal of Professional Nursing*, *33*(5), 314–325. https://doi.org/10.1016/j.profnurs.2017.07.007

Whitson, M. (2011). *Transitioning to critical care: An exploration of the new graduate registered nurse experience* [Masters thesis]. McMaster University.

Whittam, S., Torning, N., & Patching, J. (2021). A narrative inquiry approach to understanding senior intensive care nurses' experiences of working with new graduate nurses. *Journal of Clinical Nursing*, *n/a*(n/a). https://doi.org/10.1111/jocn.15844

Wiersma, G., Pintz, C., & Wyche, K. F. (2020). Transition to Practice Experiences of New Graduate Nurses from an Accelerated Bachelor of Science in Nursing Program: Implications for Academic and Clinical Partners. *The Journal of Continuing Education in Nursing; Thorofare*, *51*(9), 433–440. http://dx.doi.org.libaccess.lib.mcmaster.ca/10.3928/00220124-20200812-09

Williams, C. A., Goode, C. J., Krsek, C., Bednash, G. D., & Lynn, M. R. (2007). Postbaccalaureate Nurse Residency 1-Year Outcomes. *JONA: The Journal of Nursing Administration*, *37*(7), 357–365. https://doi.org/10.1097/01.NNA.0000285112.14948.0f

Wolff, A. C., Pesut, B., & Regan, S. (2010). New graduate nurse practice readiness: Perspectives on the context shaping our understanding and expectations. *Nurse Education Today*, *30*(2), 187–191. https://doi.org/10.1016/j.nedt.2009.07.011

World Health Organization. (2023, Sept 11). *Patient safety*. https://www.who.int/news-room/fact-sheets/detail/patient-safety

Zarshenas, L., Sharif, F., Molazem, Z., Khayyer, M., Zare, N., & Ebadi, A. (2014). Professional socialization in nursing: A qualitative content analysis. *Iranian Journal of Nursing and Midwifery Research*, *19*(4), 432–438.

Zhang, Y., Wu, J., Fang, Z., Zhang, Y., & Wong, F. K. Y. (2017). Newly graduated nurses' intention to leave in their first year of practice in Shanghai: A longitudinal study. *Nursing Outlook*, *65*(2), 202–211. https://doi.org/10.1016/j.outlook.2016.10.007

Zhao, S., Duan, X., Cheng, L., & Jiang, J. (2021). Perspective and experience of newly graduated registered nurses with standardized training in the emergency department: A qualitative study in Shanghai, China. *Nurse Education Today*, *105*, 104994. https://doi.org/10.1016/j.nedt.2021.104994

Appendix

Appendix A: Search terms for NGN in ED literature search

Appendix A.1

CINAHL Search Terms for NGNs in ED (1991-present)

Variations of terms used for literature search		Results	Included
OR	**AND** **OR**	**154**	**11**
New Graduate Nurses §†	Emergency Service +§		
Novice Nurses §†	Emergency Room †		
Novice n2 nurs* †	Emergency Department †		
Inexperienced n2 nurs* † - Inexperienced Nurse	Accident and emergency †		
Newly n2 nurs* † - Newly Graduated Nurses - Newly Qualified Nurses - Newly Licensed Graduate Nurses - Newly Graduated Registered Nurses - Newly Trained Emergency Nurses			
Recent* n2 nurs* † - Recently Graduated Nurse			

Note: §: Main heading; †: title & abstract; +: exploded

Appendix A.2

PubMed Search Terms for NGNs in ED (1997-present)

Variations of terms used for literature search		Results	Included
OR	**AND** **OR**	**43**	**7**
New Graduate Nurs* †	Emergency Department †		
Novice Nurs* †	Emergency Room †		
Newly Graduated Nurs* †	Accident & Emergency †		
Newly Qualified Nurs* †			
Newly Licensed Graduate Nurs* †			
Newly Licensed Nurs* †			
Newly Graduated Registered Nurs* †			
Newly Trained Emergency Nurs* †			
Inexperienced Nurs* †			
Recent* Graduated Nurs* †			

Note: †: title & abstract

Appendix A.3

OVID Search Terms for NGNs in ED (1992-present)

Variations of terms used for literature search			Results	Included
OR	**AND**	**OR**	**71**	**4**
New graduate nurs* †		Emergency Medical Service +§		
Novice nurs* †		Emergency service, hospital +§		
Inexperienced nurs* †		Emergency Room †		
- Inexperienced Nurse		Emergency Department †		
Recent* adj1 nurs* †		Accident and emergency †		
- Recently Graduated Nurse		Emergency Nursing §		
Recent* adj2 nurs* †				
- Recently Graduated Registered Nurse				
Newly adj1 nurs* †				
- Newly Graduated Nurses				
- Newly Qualified Nurses				
Newly adj2 nurs* †				
- Newly Licensed Graduate Nurses				
- Newly Graduated Registered Nurses				
- Newly Trained Emergency Nurses				

Note: §: Subject Heading; †: title & abstract; +: exploded

Appendix A.4

Summary of literature search results for NGNs in the ED

Database	Step 1: Articles in initial search	Step 2: Articles included after title and abstract review (duplicates removed)	Step 3: Articles included after full review
CINAHL	154	11	5
PubMed	43	1	1
OvidMedline	71	1	1
			Total: 7

Appendix B: Search terms for NGN in Critical Care literature search

Appendix B.1

CINAHL Search Terms for NGNs in Critical Care (1982-present)

Variations of terms used for literature search			Results	Included
OR	**AND**	**OR**	**525**	**69**
New Graduate Nurses §†		Critical Care §		
New Graduates §		Critical Care Nurses §		
New Graduate Role §		Critical Care †		
Novice Nurses §†		Intensive Care Units §		
Newly n2 nurs* †		Coronary Care Units §		
- Newly Graduated Nurses		Specialities, Nursing §		
- Newly Qualified Nurses		Critical Care Nursing §		
- Newly Licensed Graduate Nurses				
- Newly Graduated Registered Nurses				
- Newly Trained Emergency Nurses				
Inexperienced n2 nurs* †				
- Inexperienced Nurse				
Recent* n2 nurs* †				
- Recently Graduated Nurse				
Novic* n2 nurs* †				

Note: §: Main heading; †: title & abstract

Appendix B.2

PubMed Search terms for NGNs in Critical care (1979 year-present)

Variations of terms used for literature search			Results	Included
OR	**AND**	**OR**	**176**	**23**
New Graduate Nurs* †		Critical care † MeSH		
Novice Nurs* †		Critical care nurs* † MeSH		
Inexperienced Nurs* †		Intensive care unit †		
Recent* Graduated Nurs* †		Coronary care unit †		
Newly Graduated Nurs* †		Specialty nurs* †		
Newly Qualified Nurs* †		Emergency department †		
Newly Licensed Graduate Nurs* †		Emergency services, hospital MeSH		
Newly Licensed Nurs* †				
Newly Graduated Registered Nurs* †				
Newly Trained Emergency Nurs* †				

Note: †: title & abstract

Appendix B.3

OVID Search Terms for NGNs in Critical Care (1997-present)

Variations of terms used for literature search		Results	Included
OR	**AND** **OR**	**141**	**24**
New graduate nurs* †	Critical care §		
Novice nurs* †	Critical care nursing §		
Newly adj1 nurs* †	Intensive care units §		
- Newly Graduated Nurses	Coronary care units §		
- Newly Qualified Nurses	Specialities, nursing §		
Newly adj2 nurs* †			
- Newly Licensed Graduate Nurses			
- Newly Graduated Registered Nurses			
- Newly Trained Emergency Nurses			
Inexperienced nurs* †			
- Inexperienced Nurse			
Recent* adj1 nurs* †			
- Recently Graduated Nurse			
Recent* adj2 nurs* †			
- Recently Graduated Registered Nurse			

Note: §: Subject Heading; †: title & abstract;

Appendix B.4

Summary of literature search results for NGNs in Critical Care

Database	Step 1: Articles in initial search	Step 2: Articles included after title and abstract review (duplicates removed)	Step 3: Articles included after full review
CINAHL	525	69	27
PubMed	176	7	2
OvidMedline	141	9	2
			Total: 31

Appendix C: Recruitment

Appendix C.1: Recruitment posters

Poster Advertisement

NEW GRAD NURSES in the ED

Research study participants needed

Are you an RN who started their nursing career in a Niagara or Hamilton Emergency Department within the last two years?

We want to hear about your experience in the ED as you transitioned from learner to professional nurse.

Why are we doing this study?

- We are looking to understand the intellectual, emotional, professional, and personal experience of New Graduate Nurses as they adapt from nursing student to professional nurse in the Emergency Department setting.

What does this study involve?

- Short demographic survey
- 60-90 minute telephone/Zoom interview with Erica
- Receive a 20$ e-gift card to Tim Hortons, Indigo, or Walmart for your participation

For more information, please email:
Erica Plante, RN, BScN, MScN student
plantee@mcmaster.ca
(or scan QR code to email)

Version 1.0 2022-01-20. This study has been reviewed by the Hamilton Integrated Research Ethics Board, project #####

Twitter Advertisement

NEW GRAD NURSES in the ED

Research study participants needed

Are you an RN who started their nursing career in a Niagara or Hamilton Emergency Department within the last two years?

We want to hear about **your experience** in the ED as you transitioned from learner to professional nurse.

Receive a 20$ e-gift card to Tim Hortons, Indigo, or Walmart for your participation.

For more information, please email:
Erica Plante, RN, BScN, MScN student
plantee@mcmaster.ca
(or scan QR code to email)

Version 1.0 2022-01-20. This study has been reviewed by the Hamilton Integrated Research Ethics Board, project #####

Instagram Advertisement

NEW GRAD NURSES in the ED

Research study participants needed

Are you an RN who started their nursing career in a Niagara or Hamilton Emergency Department within the last two years?

We want to hear about **your experience** in the ED as you transitioned from learner to professional nurse.

Receive a 20$ e-gift card to Tim Hortons, Indigo, or Walmart for your participation.

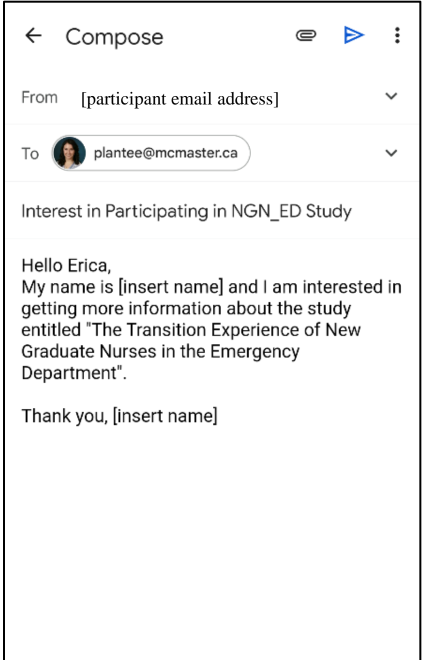
For more information, please email:
Erica Plante, RN, BScN, MScN student
plantee@mcmaster.ca
(or scan QR code to email)

Version 1.0 2022-01-20. This study has been reviewed by the Hamilton Integrated Research Ethics Board, project #####

Facebook Advertisement

QR code scan

On a phone, scanning the QR code on any of these posters opens the participants email populated by Erica's email address and the following message:



Appendix D: Participant communication

Appendix D.1: Email schedule

Email #	Indication	Email description	Included in email
Email #1 Recruitment email from the organization.	Allows organizations to send information about the study to prospective participants.	Introduction of the research project, the research, and who to contact to participate.	
Email #2 Recruitment email from researcher.	When the researcher receives an expression of interest in participating in the study.	Introduction of the researcher project, the researcher, and first steps on how to participate.	- Secondary email from Adobe Fill & Sign with the subject line "NGNs in the ED: Study Information and Consent".
Email #3 Participant eligibility status: Eligible.	When the research receives the completed Study Information and Consent document (with signed consent).	After the participant completes the consent process, this email will confirm that the participant is eligible for the study. They will be assigned a unique study ID. This email will outline the next steps to participating in the study, including a date/time for interview.	- Separate email with a copy of completed Study Information and Consent form, signed by the researcher. - Link to NGNs in the ED: Demographic and Transition Experience Questionnaire (Appendix E.1). - Interview Questions document (Appendix D.8). - How to download Zoom document (Appendix D.9). - Date, time, and Zoom link for interview
Email #4 Participant eligibility status: Non-Eligible.	When the research receives the completed Study Information and Consent document (with signed consent).	After the participant completes the consent process, this email will notify the participant that they do not meet the criteria to participate in the study.	- Separate email with a copy of the completed Study Information and Consent form, signed by the researcher.
Email #5 Reminder	48 hours before the interview date/time.		- Repeat Zoom link - Repeat link to NGNs in the ED Questionnaire.

Appendix D.2: Email #1 – Recruitment email from Organization

Dear [organization members]

Erica Plante is a graduate student in the School of Nursing at McMaster University. For her Master's thesis work, she is interested in speaking to Registered Nurses (RNs) who entered the nursing profession as a New Graduate Nurse (NGN) in the Emergency Department (ED).

Why are we doing this study?

Traditionally, RNs who work in the ED have experience elsewhere in nursing prior to entering the critical care environment. Due to continued staffing issues in critical care areas such as the ED, NGNs are graduating from their academic programs and are experiencing their first years of practice in the ED. Very little is known of this experience in the unique and demanding area of the ED. We want to develop a better understanding of this experience through interviewing RNs who have recently had their NGN experience in the ED. Insights from participants will provide valuable information that can guide healthcare professionals and organizations towards supporting NGNs' transition to the ED.

What is transition?

In the NGN context, transition is the intellectual, emotional, professional, and personal experience of adapting from nursing student to professional nurse (Duchscher, 2008; Powers et al., 2019).

What does this study involve?

RNs who are eligible and interested will be asked to participate in a 60 to 90-minute interview over the telephone or videoconference (i.e. Zoom). Prior to this interview, participants will be asked to complete a demographic questionnaire that addresses their education, employment, and orientation received when they started in the ED. Participation in this study will include an honorarium of a $20 e-gift card to Tim Hortons, Indigo, or Walmart.

To be eligible to participate, you must:

- Be a Registered Nurse in Ontario, Canada;
- Have less then 2 years of experience as an RN;
- Have started you nursing career in the Emergency Department within the last 2 years;
- Have practiced in the ED for at least 3 months;
- Have no previous experience in another profession in the medical field (i.e., Registered Practical Nurse, Paramedic, Personal Support Worker);
- Have had your NGN experience in one of the following institutions
    - Hamilton General Hospital
    - St. Joseph's Healthcare Hamilton
    - Juravinski Hospital
    - St. Catharines General Hospital
    - Welland County General Hospital

- Greater Niagara General Hospital.

If you have any questions about this research study or are interested in participating, please contact Erica Plante at plantee@mcmaster.ca. If you know someone who would be interested in this study, please forward this information to them or have them contact Erica.

Lead Student Researcher	Thesis Supervisor
Erica Plante, RN, BScN, MScN (student) Department of Health Sciences, School of Nursing McMaster University, Hamilton, ON plantee@mcmaster.ca	Pamela Baxter, RN, BA, MScN, PhD Department of Health Sciences, School of Nursing McMaster University, Hamilton, ON baxterp@mcmaster.ca

Appendix D.3: Email #2 – Recruitment email from Researcher

Dear [participant],

Thank you for your interest in participating in this research study, *"The Transition Experience of New Graduate Nurses in the Emergency Department"*.

My name is Erica and I am a graduate student at McMaster University completing my Masters of Science in Nursing. For my Master's thesis work, I am interested in speaking to Registered Nurses (RNs) who experienced their transition to nursing practice as New Graduate Nurses in the Emergency Department (ED). The insights gathered from interviews will provide guidance to healthcare professionals and organizations towards supporting NGNs' transition to the ED.

Why are we doing this study?

Traditionally, RNs who work in the ED have experience elsewhere in nursing prior to entering the critical care environment. Due to continued staffing issues in critical care areas such as the ED, NGNs are graduating from their academic programs and are experiencing their first years of practice in the ED. Very little is known of this experience in the unique and demanding area of the ED. We want to develop a better understanding of this experience through interviewing RNs who have recently had their NGN experience in the ED.

To be eligible to participate, you must:

- Be a Registered Nurse in Ontario, Canada;
- Have less then 2 years of experience as an RN;
- Have started you nursing career in the Emergency Department within the last 2 years;
- Have practiced in the ED for at least 3 months;
- Have no previous experience in another profession in the medical field (i.e., Registered Practical Nurse, Paramedic, Personal Support Worker);
- Have had your NGN experience in one of the following institutions
    - Hamilton General Hospital
    - St. Joseph's Healthcare Hamilton
    - Juravinski Hospital
    - St. Catharines General Hospital
    - Welland County General Hospital
    - Greater Niagara General Hospital

How to begin participating in the study:

You will receive a second email with the subject line "NGN in the ED: Study Information and Consent". This second email will contain a form outlining the information you will need to understand your participation in the study, an eligibility screening tool, a consent form, and a section for you to give you availability for a 60-90-minute interview. Please read pages 1-3 and fill out all needed sections on page 4 of this document. If at any point you have questions about the information in this form, feel free to email me (Erica) at the address below. You can return to the form when you feel fully informed and prepared to participate.

Your participation will be greatly appreciated and will include an honorarium of a $20 e-gift card to Tim Hortons, Indigo, or Walmart. Additionally, if you know someone who would be interested in this study, please forward this information to them or have them contact Erica.

Thank you,

Lead Student Researcher	Thesis Supervisor
Erica Plante, RN, BScN, MScN (c) Department of Health Sciences, School of Nursing McMaster University, Hamilton, ON plantee@mcmaster.ca	Pamela Baxter, RN, BA, MScN, PhD Department of Health Sciences, School of Nursing McMaster University, Hamilton, ON baxterp@mcmaster.ca

Appendix D.4: Email #3 – Participant Eligibility Status (Eligible)

Dear [participant],

Thank you for filling out Study Information and Consent document for the research study *"The Transition Experience of New Graduate Nurses in the Emergency Department"*. In a separate email, you should have received an email with a copy of the completed consent form, including my signature.

Next steps:

- Complete NGNs in the ED: Demographic and Transition Experience Questionnaire
    - **Your unique study ID is: NGN_##**
    - This survey includes questions about your demographics (i.e., age, gender), educational and employment experience, and orientation methods used in the ED of your institution.
- 60 to 90-minute interview
    - **Your study interview is scheduled for: [date, time, platform, link]**

If you have any further questions before the interview, please contact Erica at the email address below.

Thank you,

Lead Student Researcher	Thesis Supervisor
Erica Plante, RN, BScN, MScN (c) Department of Health Sciences, School of Nursing McMaster University, Hamilton, ON plantee@mcmaster.ca	Pamela Baxter, RN, BA, MScN, PhD Department of Health Sciences, School of Nursing McMaster University, Hamilton, ON baxterp@mcmaster.ca

Appendix D.5: Email #4 – Participant Eligibility Status (Non-Eligible)

Dear [participant],

Thank you for filling out Study Information and Consent document for the research study *"The Transition Experience of New Graduate Nurses in the Emergency Department"*.

Based on your responses in the eligibility screening tool, you do not meet the criteria needed to participate in this study. We greatly appreciate your interest in sharing your experience and contributing to this research endeavour. However, we are looking to speak to Registered Nurses who have had their New Graduate Nursing experience within the last two years in an Emergency Department of medium-sized academic hospitals.

In a separate email, you should have received an email with a copy of the completed consent form, including my signature.

Thank you,

Lead Student Researcher	Thesis Supervisor
Erica Plante, RN, BScN, MScN (c) Department of Health Sciences, School of Nursing McMaster University, Hamilton, ON plantee@mcmaster.ca	Pamela Baxter, RN, BA, MScN, PhD Department of Health Sciences, School of Nursing McMaster University, Hamilton, ON baxterp@mcmaster.ca

Appendix D.6: Email #5 – Reminder email

Dear [participant],

This is a friendly reminder of your participation in an interview with Erica Plante for the research study *"The Transition Experience of New Graduate Nurses in the Emergency Department"*.

Your study interview is scheduled for: [date, time, platform, link]

Please let me know if you need to change the interview date, time, or platform. Prior to the interview, ensure that you have filled out NGNs in the ED: Demographic and Transition Experience Questionnaire.

Thank you,

Lead Student Researcher	Thesis Supervisor
Erica Plante, RN, BScN, MScN (c) Department of Health Sciences, School of Nursing McMaster University, Hamilton, ON plantee@mcmaster.ca	Pamela Baxter, RN, BA, MScN, PhD Department of Health Sciences, School of Nursing McMaster University, Hamilton, ON baxterp@mcmaster.ca

Appendix D.7: Study Information and Consent document

STUDY INFORMATION AND CONSENT

The Transition Experience of New Graduate Nurses in the Emergency Department

Investigators:

Lead Student Investigator:
Erica Plante, RN, BScN, MSc student
Department of Health Sciences
McMaster University
Hamilton, ON, Canada
E-mail: plantee@mcmaster.ca

Thesis Supervisor:
Dr. Pamela Baxter, RN, BA, MSc, PhD
Department of Health Sciences
McMaster University
Hamilton, ON, Canada
E-mail: baxterp@mcmaster.ca

Purpose of the Study

The purpose of this study is to develop an understanding of how New Graduate Nurses (NGNs) who begin their nursing career in the Emergency Department (ED) perceive their experience of transition to professional practice. Transition in this context is the intellectual, emotional, professional, and personal experience of adapting from nursing student to professional nurse (Duchscher, 2008; Powers et al., 2019). I am doing this research as part of my Master's of Science in Nursing graduate degree. I am hoping to learn about what aspects of your experience helped or hindered your integration to the nursing profession on a personal, interpersonal, and organizational level.

What will happen during the study?

Steps	Description
1	You are currently in Step 1 of participation. After I (Erica) received an email from you expressing interest in participating in this study, you receive this form. Pages 1 to 3 outline the information needed to understand your participation in the study. Page 4 includes an eligibility screening tool, an area for your signature, and an area to suggest three potential dates and times for a 60-to-90-minute interview. After you have read the implications of the study, please fill out page 4 and submit this document to continue through to Step 2 of the study.
2	Once you have completed the consent form, I will send you a follow-up email with the following: • A signed copy of your completed consent form; • A link to NGNs in ED: Demographic and Transition Experience questionnaire; • A document containing the questions I will ask during the interview; • A date, time and Zoom link for our interview. When you receive this email, fill out the questionnaire and take some time to read through the interview questions, reflecting on your NGN experience prior to our meeting. Add the date and time of our interview in your calendar.
3	The interview will take place over Zoom, an online video meeting platform, on our agreed upon date and time. With your permission, the interview will be video and audio recorded. I will ask you to verbally confirm that you have consented to participating in the study. During the interview, I will be asking you the questions you have received by email, and follow-up questions about what we are discussing. While we are talking over Zoom, I may write some notes down, which helps me keep track of the conversation and important points I want to follow-up with.

Version #4 - Version Date: Apr 2022 Page 1 of 4

Are there any risks to doing this study?

The risks involved in participating in this study are minimal. You may feel uncomfortable with reflecting on your experiences as an NGN. You do not need to answer questions that you do not want to answer or that make you feel uncomfortable. You may stop and take a break whenever you'd like. Your participation is entirely voluntary, and you can withdraw (stop taking part) at any time. By participating in this study, you do not waive any rights to which you may be entitled to under law.

Are there any benefits to doing this study?

As you have already experienced your time as a new graduate, the research will not benefit you directly. I hope that what is learned as a result of this study will help organizations build programs and supports for future NGNs who are hired to the ED. This could help improve the experience of transition and retain ED nurses towards building a stronger workforce.

Payment or Reimbursement

Once we are done the interview, I will send you an honorarium of a $20 e-gift card to Tim Hortons, Indigo, or Walmart to an email of your choice. This is a thank you for your time in participating in this study.

Privacy and Confidentiality

Every effort will be made to protect your confidentiality and privacy. Unless you choose to tell others, no one will know of your interest or participation in this study, including your employer. Your participation in this study will therefore have no effect on any performance evaluation. However, we are often identifiable through the stories we tell. Please keep this in mind when deciding what to share in this study.

The following steps will be taken to protect your privacy and confidentiality:

- Any personal information (i.e., name, contact information, associated ID number) will be saved as an encrypted file on a secure server;
- Each participant receives a unique ID number that will allow the research team to link your interview to your questionnaires, keeping your identity away from the data;
- All identifying information (e.g., names, employer information, email addresses etc.) will be removed/replaced with a placeholder as the interviews are converted (transcribed) to text format;
- We are using programs with enhanced security to keep your information safe. These include Zoom, LimeSurvey, MacDrive, where all the accounts used in this research are affiliated with McMaster University;
- All digital files will be encrypted, password protected, and uploaded onto MacDrive, a privately hosted, secure, cloud storage solution hosted by McMaster University.
- Zoom automatically records both a video and audio file from our interview. To mimic an in-person interview environment, keeping the video on is helpful, however not mandatory. The video recording of our interview will be destroyed immediately after the interview, as it is not needed for the analysis portion of the study. The audio file will be saved for the remainder of the study;
- We ask participants not to record the interview through Zoom or on their personal devices.
- Once the study is complete, an archive of the data without identifying information, will be kept on a password protected USB by the researcher, and destroyed after 10 years;
- Direct quotes may be used if the results of this study are published. Your name or any other identifying information will be removed/replaced with a placeholder.

This study will use Zoom video-conferencing software to conduct the interviews. The Zoom platform is an externally hosted cloud-based service. A McMaster Zoom account will be used, which is an institutional account with enhanced security. A link to their privacy policy is available here (https://explore.zoom.us/en/privacy/). While the Hamilton Integrated Research Ethics Board has approved using Zoom to collect data for this study, there is a small risk of a privacy breach for data collected on external servers. Therefore, we cannot guarantee the privacy of data collected using Zoom. If you are concerned about this, please let us know and we can arrange alternate ways for you to participate, such as by phone. To mediate this issue and further protect your privacy, all files that are saved in the cloud-based server will be removed and saved to my personal MacDrive account.

As I am a graduate student and in the process of learning to conduct research, there are a few people within the research team that may access information from this study. All parties beyond myself who access information this study will be required to sign a Confidentiality Agreement. By signing the consent form, you authorize such access.

- My thesis supervisor (Dr. Baxter) may access collected data in an effort to guide me through the process of conducting research and allow for the best outcomes;
- A transcriptionist is used to convert the audio recording of our interview to text, which I will then analyze to produce findings. The transcriptionist will be sent the audio file from our Zoom interview, will de-identify and transcribe the file to written text;
- Finally, for the purpose of ensuring the proper monitoring of the research study, it is possible that a member of the Hamilton Integrated Research Ethics Board may consult the research data.

What if I change my mind about being in the study?

Your participation in this study is voluntary. It is your choice to be part of the study or not. If you decide to be part of the study, you can decide to stop (withdraw) at any time, even after signing the consent form or part-way through the study. You can do so by emailing Erica at the email address on page 1. If you decide to withdraw, there will be no consequences to you. The information you provide up to the point where you withdraw will be kept unless you request that it be removed. You can still be in the study if you do not want to answer some of the questions.

How do I find out what was learned in this study?

I expect to have this study completed by approximately December 2022. If you would like a brief summary of the results, please let me know how you would like it sent to you.

Questions about the study

If you have questions or need more information about the study itself, please contact me at: plantee@mcmaster.ca

This study has been reviewed by the Hamilton Integrated Research Ethics Board (HiREB). The HiREB is responsible for ensuring that participants are informed of the risks associated with the research, and that participants are free to decide if participation is right for them. If you have any questions about your rights as a research participant, please call the Office of the Chair, HiREB, at 905.521.2100 x 42013.

Ways to submit this form

1. On your phone or computer through the form link in the email with subject line "NGNs in ED: Study Information and Consent"
2. Printed, filled out and signed, and a picture of page 4 sent to plantee@mcmaster.ca

McMaster University | HEALTH SCIENCES

ELIGIBILITY

Please fill in the following table. Answering YES to the criteria below indicates you are eligibile to participate in the study.

Criteria	YES	NO
You are a registered Nurse (RN) in Ontario.	☐	☐
You started your nursing career in the ED.	☐	☐
You have less then 2 years of exerience as an RN.	☐	☐
You practiced in the ED for at least 3 months.	☐	☐
You have no previous experience in another profession in the medical field. (ex. Registered Practical Nurse, Paramedic, Personal Support Worker. This does not include placements or externships that you participated in during your academic period.)	☐	☐
You had your new graduate nursing experience in one of the following hospitals: - Hamilton General Hospital - St. Joseph's Healthcare Hamilton - Juravinski Hospital - St. Catharines General Hospital - Greater Niagara General Hospital - Welland County General Hospital.	☐	☐

CONSENT

I have read the information presented in the information letter about a study being conducted by Erica Plante of McMaster University. I have had the opportunity to ask questions about my involvement in this study and to receive additional details I requested. I understand that if I agree to participate in this study, I may withdraw from the study at any time. I will be given a signed copy of this form. I agree to participate in the study.

Name of Participant (Printed) Signature Date

AVAILABILITY

Please indicate three date and time options (between 9am and 7pm) that work with your schedule for a 60-90-minute interview with Erica. (ex. May 20th, 0900-1200 would indicate you are available for a 60–90-minute interview between 9am and noon on May 20th).

Option 1 Option 2 Option 3

(FOR RESEARCHER) Consent form received by:

Name and Role (Printed) Signature Date

Version #4 - Version Date: Apr 2022 Page 4 of 4

Appendix D.8: Interview Questions document

Interview Questions

Study Name: The Transition Experience of New Graduate Nurses in the Emergency Department

Investigators:

Lead Student Researcher
Erica Plante, RN, BScN, MScN (c)
Department of Health Sciences
School of Nursing
McMaster University, Hamilton, ON
plantee@mcmaster.ca

Thesis Supervisor
Pamela Baxter, RN, BA, MScN, PhD
Department of Health Sciences
School of Nursing
McMaster University, Hamilton, ON
baxterp@mcmaster.ca

Transition: The intellectual, emotional, professional, and developmental experience of adapting from nursing student to professional nurse (Duchscher, 2008; Powers et al., 2019).

1. What brought you to work in the ED as your first nursing job after graduating from your degree?
2. Can you please describe to me what it was like for you to transition from school to your first nursing position in the ED?
3. What factors influenced your transition? Did these factors have a positive or negative influence on your transition? Please explain how and why.
4. What challenges, if any, did you encounter during your transition from student to practicing nurse in the ED setting? What strategies did you employ to manage and/or overcome any challenges you might have encountered?
5. What was your biggest surprise when you entered into the ED as a new graduate?
6. What supports or lack of supports influenced your transition experience? Please explain.
7. What recommendations, suggestions, or ideas do you have that might make the transition easier for other NGNs in the ED?
8. Tell me what you would say to an NGN wanting to work for the first time in the ED?

Version #1 - Version Date: Jan 2022 Page 1 of 1

Appendix D.9: How to download Zoom document provided to participants (Email #3).

Appendix E: Data Generation

Appendix E.1: NGNs in the ED: Demographic and Transition Experience Questionnaire.

NGNs in the ED: Demographic and Transition Experience Questionnaire

Study name: The Transition Experience of New Graduate Nurses in the Emergency Department

This survey includes the following:

- 1.1 Demographic Questionnaire
- 1.2 Education/Employement Questionnaire
- 1.3 Orientation Questionnaire

This questionnaire should take approx 10-12 minutes to complete.

If you have any questions while reading through this survey, do not hesitate to exit the questionnaire and return when you are ready to complete it.

Any questions can be directed to Erica Plante at plantee@mcmaster.ca.

There are 18 questions in this survey.

1.1 Demographic Questionnaire

Please enter your unique study ID (e.g. NGN_##). *

Please write your answer here:

Your unique study ID should have been provided by the research team following your consent. If you do not know your study ID, please stop completing the questionnaire and reach out to your research team.

What is your current age? *

Choose one of the following answers

Please choose **only one** of the following:

- ◯ 21
- ◯ 22
- ◯ 23
- ◯ 24
- ◯ 25
- ◯ 26
- ◯ 27
- ◯ 28
- ◯ 29
- ◯ 30+

What gender do you identify with? *

Choose one of the following answers

Please choose **only one** of the following:

- ◯ Female
- ◯ Male
- ◯ Non-Binary
- ◯ Prefer not to respond
- ◯ Other

2.2 Education/Employment Questionnaire

Please indicate the month and year you graduated from your nursing degree (MM/YYYY, e.g. 05/2020) *

Please write your answer here:

Please indicate the month and year you started working in the Emergency Department (MM/YYYY, e.g. 05/2020) *

Please write your answer here:

At what capacity were you hired in the ED? *

Check all that apply

Please choose **all** that apply:

- [ ] Permanent
- [ ] Temporary
- [ ] Full-time
- [ ] Part-time
- [ ] Other:

How many hours per week (average) did you work in the ED during your first year of nursing practice? *

Choose one of the following answers

Please choose **only one** of the following:

- ◯ 12-24 hours (one to two 12-hour shifts a week)
- ◯ 24-36 hours (two to three 12-hour shifts a week)
- ◯ 36-48 hours (three to four 12-hour shifts a week)
- ◯ Over 48 hours (over four 12-hour shifts a week)

Did you have any experience in the Emergency Department prior to your employement? *

Check all that apply

Please choose **all** that apply:

- [ ] Volunteer
- [ ] Student placement (for course credit)
- [ ] Student externship (not for course credit)
- [ ] No previous experience
- [ ] Other:

Are there multiple sections for patient care within your Emergency Department? If so, indicate which ones apply to you. *

Check all that apply

Please choose **all** that apply:

- [ ] Trauma/Resuscitation
- [ ] Rapid Assessment Zone
- [ ] Urgent Care/See & Treat/Ambulatory Care
- [ ] Acute Care/Observation
- [ ] EMS offload
- [ ] Admission holding
- [ ] Other:

Note: Name of the area may be different depending on site. If you do not recognize an area applicable to your practice area, choose "Other" and name the area applicable to your practice.

Are you currently working in the Emergency Department where you initially trained in? *

Choose one of the following answers

Please choose **only one** of the following:

- Yes
- No

How many **months** were you in the Emergency Department before moving to a different department/profession (including you orientation/preceptorship? *

Only answer this question if the following conditions are met:
Answer was 'No' at question ' [currentemploy]' (Are you currently working in the Emergency Department where you initially trained in?)

Choose one of the following answers

Please choose **only one** of the following:

- 4 to 8 months
- 9 to 12 months
- 13 to 16 months
- 17 to 20 months
- 21 to 24 months
- Other

Which department/profession do you work in now? *

Only answer this question if the following conditions are met:
Answer was 'No' at question ' [currentemploy]' (Are you currently working in the Emergency Department where you initially trained in?)

Please write your answer here:

2.3 Orientation Questionnaire

How many weeks of orientation did you receive upon hire? *

Choose one of the following answers
Please choose **only one** of the following:

- 8 weeks or less
- 9 to 12 weeks
- 13 to 16 weeks
- 17 to 23 weeks
- 24 weeks or more
- Other

Orientation includes corporate in-class sessions and preceptored shifts.

How many preceptors did you have during your orientation? *

Choose one of the following answers
Please choose **only one** of the following:

- 1
- 2
- 3
- 4
- 5

Preceptor: "an experienced, competent practitioner who enter into a one-to-one relatinoship for a predetermined length of time with a novice practitioner for orientation to the nursing role and associated responsbilities" (Baxter, 2010, p. E12)

Were there instances when your preceptorship was impacted by staffing issues? If yes, briefly describe the situation(s). *

Choose one of the following answers
Please choose **only one** of the following:

- Yes
- No

Make a comment on your choice here:

e.g. your orientation/preceptorship was shortened; your preceptor was unable to supervise you as they were needed for department tasks

Did you request more time in your preceptorship? *

Choose one of the following answers
Please choose **only one** of the following:

- Yes
- No

Was your request granted? (i.e. did you get more time with your preceptor?) *

Only answer this question if the following conditions are met:
Answer was 'Yes' at question ' [moreorientation]' (Did you request more time in your preceptorship?)

Choose one of the following answers
Please choose **only one** of the following:

- Yes
- No

How many extra weeks of preceptorship did you receive?

Only answer this question if the following conditions are met:
((moreorientation.NAOK (/limesurvey/index.php/questionAdministration/view/surveyid/322316/gid/69053/qid/904308) == 'yes'))

Choose one of the following answers
Please choose **only one** of the following:

- 2 to 3 weeks
- 4 to 5 weeks
- Over 6 weeks

Thank you for your participation.

Submit your survey.
Thank you for completing this survey.

Appendix E.2: Participant Information and Compensation Log

Participant Information and Compensation Log

Name	Email	Study ID	Chosen e-gift	E-gift sent
e.g., Erica Plante	plantee@mcmaster.ca	NGN_##	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes
		NGN_01	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes
		NGN_02	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes
		NGN_03	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes
		NGN_04	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes
		NGN_05	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes
		NGN_06	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes
		NGN_07	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes
		NGB_08	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes
		NGN_09	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes
		NGN_10	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes
		NGN_11	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes
		NGN_12	☐ Tim Hortons ☐ Walmart ☐ Indigo	☐ Yes

Version #1- Jan 2022

Appendix E.3: Researcher Semi-Structured Interview Guide

Semi-Structured Interview Guide

Study Name: The Transition Experience of New Graduate Nurses in the Emergency Department

Participant ID Number		
Interview Date		
Interview	Start time	
	End time	
Informed Consent (from Survey #1)		☐ Yes ☐ No
Survey #2 complete		☐ Yes ☐ No
Honorarium sent		☐ Yes ☐ No

Introduction/Consent

- ☐ Hello, my name is Erica Plante. I am a graduate student enrolled in the Master's of Science in Nursing program at McMaster University.
- ☐ Thank you for taking time out of your day to speak to me and for participating in this study.
- ☐ This interview will take approximately 60 to 90 minutes. Please feel free to stop the interview at any time or to pass on any question/s that I pose that you not comfortable answering.
- ☐ For the record, you have had a chance to review and sign the consent. Do you have any additional questions before we start?
- ☐ As per the study information in Survey #1, we have taken steps to protect your privacy and confidentiality throughout this study. To mimic an in-person interview environment, we can use both the video and audio provided by Zoom. If you choose to appear on the video, the video component of the interview will be destroyed immediately following the interview and only the audio will be kept and analyzed.
- ☐ I would like to confirm your choice of honorarium and the email you'd like me to use to send it to. The honorarium will be sent to you after the interview. You will receive this honorarium even if we do not complete the full interview. [Email and chosen honorarium documented on Participation Information and Compensation Log (see Appendix E.3)]

Technological issue plan

- ☐ If we get disconnected due to technological issues, we can start by trying to reconnect over the Zoom platform by clicking the same link that was initially sent to you.
- ☐ If that does not work, please call this number: ###-###-#### [Researchers personal number]

Version 3.0 – Jan 2022 **Page 1 of 3**

Purpose

- The purpose of this study is to develop an understanding of how New Graduate Nurses (NGNs) who begin their nursing career in the Emergency Department (ED) perceive their experience of transitioning to professional nursing practice.
- Transition is the intellectual, emotional, professional, and developmental experience of adapting from nursing student to professional nurse (Duchscher, 2008; Powers et al., 2019).
- As an ED nurse myself, I am very interested in learning about your experience as an NGN in the ED. You are the expert in your experience, and there is no such thing as a right or wrong answer.

Experience in general

1. What brought you to work in the ED as your first nursing job after graduating from your degree? (Prompt: Why did you apply to the ED? What influenced your decision to apply? Who?)
2. Can you please describe to me what it was like for you to transition from school to your first nursing position in the ED?
3. What factors influenced your transition? (E.g., colleagues, managers, policies, orientation)
   - Follow up: Did these factors have a positive or negative influence on your transition? Please explain how and why.
4. What challenges, if any, did you encounter during your transition from student to practicing nurse in the ED setting? (E.g., rapidly changing patient assignments? Assessments? Charting/Paperwork?)
   - Follow-up: What strategies did you employ to manage and/or overcome any challenges you might have encountered?
   - Follow-up: Were these strategies effective? Explain why or why not?
5. What was your biggest surprise when you entered into the ED as a new graduate?
6. What supports or lack of supports influenced your transition experience? Please explain. (Prompt: Supports from management? From your coworkers? From other NGNs? Personal supports?)
7. Once you were done your orientation, did you feel prepared to practice autonomously? If not, when did you feel confident to work autonomously?

Recommendations/suggestions

8. What recommendations, suggestions, or ideas do you have that might make the transition easier for other NGNs in the ED?
9. Tell me what you would say to an NGN wanting to work for the first time in the ED?

Version 3.0 – Jan 2022 **Page 2 of 3**

Final thoughts

10. Final question: Is there anything else I have forgotten to ask you about your experience as an NGN transitioning to practice through the ED? Is there anything other then what I asked that you would like to share?

- ☐ I'd like to thank you again for taking time out of your day to talk with me. Your contribution to this research project is very much appreciated.
- ☐ If you know any individuals that would also be eligible and interested in participating in this study, please pass along my information to them.
- ☐ I will send your honorarium after ending this interview. Please email me if you haven't received it within the next 24 hours.

End of file

Version 3.0 – Jan 2022 **Page 3 of 3**

Appendix E.4: Field Note Template

Field Note Template

Study name: The Transition Experience of New Graduate Nurses in the Emergency Department

Participant ID number		
Interview Date		
Interview	Start time	
	End time	

Observational notes (verbal/non-verbal communication cues, location, behaviour, participant affect or presentation):

Methodological notes [see printed copy of interview questions] (poor/good questions, new questions):

Theoretical notes (themes, patterns, challenges):

Personal reflections:

Version #1- Jan 2022

Appendix F: Data Management

Appendix F.1: Online Platforms used for NGNs in the ED study

Online platform	Indication	Security
Microsoft 365: Outlook	Correspondence with participants	Institutional account through McMaster University; Password protected.
Adobe Fill & Sign	Study Information and Consent form	Password protected.
LimeSurvey	Demographic and Transition Experience Questionnaire	Institutional account through McMaster University; Password protected.
Microsoft 365: Word	Personal Information and Compensation log	Institutional account through McMaster University; Password protected.
Microsoft 365: Excel	Organize data from Demographic and Transition Experience Questionnaire	Institutional account through McMaster University; Password protected.
Zoom	Conducted interviews and recorded audio and video files	Institutional account through McMaster University; Password protected.
MacDrive	Storage of files	Institutional account through McMaster University; Password protected.
MaxQDA	Qualitative Analysis Software; Storage of transcripts	Password protected.
Bitdefender Total Security	Cybersecurity Software for personal device; File Shredder	

Appendix G: Data Analysis documents

Appendix G.1: Transcriptionist Confidentiality form.

McMaster University | HEALTH SCIENCES

Erica Plante, RN, BScN, MSc student
plantee@mcmaster.ca

Transcriptionist Confidentiality Agreement

Date: 2021-##-##
Project Number: #####
Project Title: The Transition Experience of New Graduate Nurses in the Emergency Department
Lead Student Investigator: Erica Plante
Local Principal Investigator: Dr. Pamela Baxter

This Confidentiality Agreement ("Agreement") is made and effective on ________________ (date; YYYY-MM-DD) by and between Erica Plante ("Nominated Lead Student Investigator") and Dr. Pamela Baxter ("Local Principal Investigator") for the research study *The Transition Experience of New Graduate Nurses in the Emergency Department* (Project Number #####), ________________________ (name).

1. Confidential Information

The Lead Student Investigator proposes to disclose certain confidential information (the "confidential information") to the transcriptionist. Confidential information includes, but is not limited to, digital recordings of interviews conducted for this study (Project Number #####). The digital recordings will be labeled by each participant's unique study identifier code. Within the digital recordings, study participants may refer to the location where they deliver services, names or local health services within their community.

2. Transcriptionist's Obligations

A. The transcriptionist agrees that confidential information shall not be used for any other purpose than their business with this study (Project Number #####), and shall not disclose, publish, or otherwise reveal the confidential information to any other party whatsoever except with prior written authorization from the Lead Student Investigator or the Local Principal Investigator (or her designate).
B. Confidential information will be securely transmitted via password protected files and using approved document management systems (e.g., McMaster Microsoft Office 365) on secure servers.
C. Confidential information shall not be duplicated, or scanned by the transcriptionist, except for purposes of this Agreement.
D. The transcriptionist shall not disclose confidential information in any communications (e.g., e-mail, fax, text, etc.).
E. If any individual outside of this study not mentioned within this Agreement obtains access to confidential information, this is considered a breach of confidentiality. The study Research Team at McMaster University must be promptly notified within one business day, thereafter.

3. Terms

The obligations of the transcriptionist shall be effective ______________ (date; YYYY-MM-DD). Further, the obligation not to disclose confidential information shall not be affected by employment reassignment, termination or leave.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

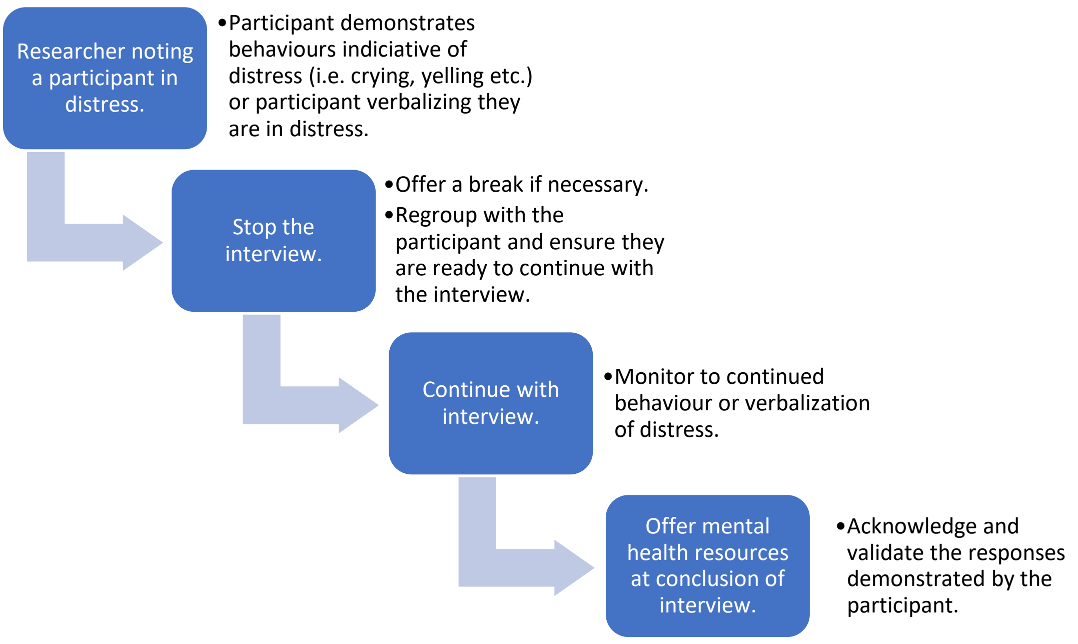
Transcriptionist's Signature: ____________________________________
Date (YYYY-MM-DD): ____________________________________

Signature of Lead Student Investigator: ____________________________________
Date (YYYY-MM-DD): ____________________________________

Version #1 - Version Date: Jan 2022 **Page 1 of 1**

Appendix H: Ethics

Appendix H.1: Participant distress protocol.



- Employee Assistance Program through Hamilton Health Sciences and Niagara Health System, or Local Emergency Department (for severe distress)
- 24/7 virtual/phone services
  - Hamilton
    - St. Joseph's Hospital Crisis Outreach and Support Team (COAST): 905-972-8338
    - Distress Center Halton (through Crisis Services Canada)
      - North Halton Crisis Line: (905) 877-1211
      - Oakville Crisis Line: (905) 849-4541
      - Burlington (Hamilton) Crisis Line: (905) 681-1488
  - Niagara
    - Niagara Crisis Outreach and Support Team (COAST): 1-866-550-5205
    - Distress Center Niagara (through Crisis Services Canada
      - St. Catharines, Niagara Falls and Area – 905-688-3711
      - Port Colborne, Wainfleet and Area – 905-734-1212
      - Fort Erie and Area – 905-382-0689
      - Grimsby, West Lincoln – 905-563-6674
- Canadian Mental Health Association:
  - Hamilton: https://cmhahamilton.ca/
  - Niagara: https://niagara.cmha.ca/