

**BARRIERS & STRATEGIES TO NURSING REGISTRATION FOR IENS**

BARRIERS AND STRATEGIES TO TIMELY NURSING REGISTRATION FOR  
INTERNATIONALLY EDUCATED NURSES:  
A SCOPING REVIEW

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in Partial Fulfillment of the Requirements for the  
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TITLE: Barriers and Strategies to Timely Nursing Registration for Internationally  
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### **Lay Abstract**

This study explores the literature on internationally educated nurses (IENs) and the difficulties they face, as well as the strategies they use to obtain nursing registration. Arksey and O’Malley’s framework was used to guide this scoping review. Seven databases were searched along with many grey literature sources in order to find articles on barriers and strategies to nursing registration for IENs. A numerical and thematic analysis was conducted to present the findings. Seven main themes emerged from the thematic analysis: timely information, credential assessment, obtaining documents, language requirements, nursing registration costs, bridging programs and the nursing registration exam. More research is required about whether the various bridging programs and initiatives meet the needs of IENs and help them become registered as nurses. Findings from this study are important for nurse staffing and policies and practices to improve the stability and diversity of the nursing workforce.

## **Abstract**

**Background:** Internationally educated nurses (IENs) have become a significant source of nursing supply as a result of nursing workforce shortages, the aging population and patient acuity. However, IENs face substantial delays and barriers obtaining licensure and employment equivalent to their skills and experience. When IENs are unable to practice their profession, they experience a considerable loss of professional identity, earning potential and financial stability. The purpose of this scoping review was to identify and map key themes in the existing literature on the barriers and strategies to timely nursing registration for IENs.

**Methods:** Arksey and O’Malley’s methodological framework was used for this study. Seven electronic databases were searched along with several grey literature sources in order to capture articles that discussed barriers and strategies to timely nursing registration for IENs. A numerical and thematic analysis was conducted to explore the scope of the literature and to present the findings.

**Results:** After full-text screening, 38 pieces of relevant literature were selected for inclusion in the review. The majority (53%) were studies and most (42%) were qualitative. Seven key themes emerged from the thematic analysis: timely information, credential assessment, obtaining documents, language requirements, nursing registration costs, bridging programs and the nursing registration exam.

**Conclusion:** While some IENs are able to successfully navigate the process for obtaining nursing licensure, it is clear that many IENs face obstacles at every step of the process and some never become registered as nurses. Further research is required about whether

the various bridging programs and initiatives meet the needs of IENs and help them become registered as nurses. Findings from this scoping review have significant implications for nurse staffing and policies and practices to improve the strength, stability, and diversity of the nursing workforce.

*Keywords:* internationally educated nurses, barriers, strategies, registration, scoping review

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**List of Abbreviations**

**CARE** - Creating Access to Regulated Employment

**CASN** - Canadian Association of Schools of Nursing

**CIC** - Citizenship and Immigration Canada

**CIHI** - Canadian Institute for Health Information

**CNA** - Canadian Nurses Association

**CNO** - College of Nurses of Ontario

**CPNRE** - Canadian Practical Nurse Registration Examination

**ELT** - Enhanced Language Training

**ICN** - International Council of Nurses

**IEHPI** - Internationally Educated Health Professionals Initiative

**IEN** - Internationally Educated Nurse

**IENCAP** - Internationally Educated Nurse Competency Assessment  
Program

**IRPA** - Immigration and Refugee Protection Act

**NCLEX** - National Council Licensure Examination

**NNAS** - National Nursing Assessment Service

**OSBP** - Ontario Special Bursary Program

**OSCE** - Objective Structured Clinical Examination

**PASS** - Pre-Arrival Supports and Services

**RN** - Registered Nurse

**RPN** - Registered Practical Nurse

**Declaration of Academic Achievement**

I declare that I, Nikita D’Mello, am the author of this thesis. I recognize the contributions of Dr. Andrea Baumann, Dr. Ruth Chen, and Dr. Olive Wahoush in both the research process and the completion of the thesis. This copy includes all final revisions as accepted by the Supervisory Thesis Committee.

## **Chapter 1: Introduction**

As a result of nursing workforce shortages, internationally educated nurses (IENs) have become a significant source of nursing supply in Canada and other developed countries (Baumann et al., 2006; Covell et al., 2018). Over the last two decades, large numbers of nurses have migrated to Canada from around the world, making it one of the main destination countries for IENs (Baumann et al., 2006; Covell et al., 2018). Population growth in Canada is driven largely by immigration. Despite the emergence of COVID-19, international migration accounted for 58% of population growth in 2020 and the national population surpassed 38 million in January 2021 (Statistics Canada, 2020, 2021).

The Federal Skilled Worker program is intended to help highly skilled immigrants who have experience, education or qualifications and want to settle in Canada permanently (Government of Canada, 2021a). Applicants include IENs who, according to the most recent data available, made up approximately 9% of the regulated nursing workforce nationwide in 2019 (Canadian Institute for Health Information [CIHI], 2019). The CIHI (2019) reports that the Canadian nursing workforce reached 439,975 nurses in 2019 and included 37,370 IENs who were licensed to practice. Even prior to the COVID-19 pandemic it was predicted that the number of IENs will continue to increase due to growing nursing shortages, as a result of an aging nursing workforce and limited nursing graduates to replace those that are retiring (CIHI, 2010; Duffield & O’Brien-Pallas, 2003). It has been estimated that by the year 2022, Canada will be experiencing a shortage of almost 60,000 registered nurses (Canadian Nurses

Association [CNA], 2009). However, this estimate does not take into account the effects of the pandemic.

Employment forecasts indicate there will be an increased demand for nurses across the health sector (Government of Canada, 2021b; Ranstad, 2021).

Internationally educated nurses can help meet this growing demand. However, compared to nurses born in Canada, IENs face considerable delays and barriers obtaining licensure and jobs equivalent to their skills and experience (Baumann et al., 2017; Ma et al., 2020). For example, language and communication; differences in work culture, responsibilities and expectations; lack of recognition; and devaluing of their qualifications (Allen, 2018; Pung & Goh, 2017; Yu, 2010). Kolawole (2009) reported that approximately 40% of IENs in Ontario never complete the nursing registration process, and thus are unable to practice as nurses. This is especially significant since only 2% of Ontario educated applicants do not complete the registration process (College of Nurses of Ontario [CNO], 2006; Kolawole, 2009). When IENs are unable to practice their profession, Canada experiences a significant loss of human capital and IENs experience a significant loss of professional identity, earning potential and financial stability (Ng & Gagnon, 2020).

Commensurate employment of IENs can help sustain the nursing workforce, which has been impacted by a growing shortage of healthcare professionals, the aging population and COVID-19 (Caulfield, 2020; Gohar et al., 2020; Picard, 2021).

Employing IENs can also have a positive impact on patient care (Njie-Mokonya, 2015). The health workforce in Canada must change to better reflect and serve

communities that are becoming increasingly diverse. This trend will continue under the federal government’s plan to welcome a record number of more than 400,000 newcomers annually over the next three years (Immigration, Refugees and Citizenship Canada, 2020), thus making optimal labour market participation of IENs even more vital.

### **Purpose of the Study**

The purpose of this scoping study is to identify and map key themes in the existing literature on the barriers and strategies to timely nursing registration for IENs. As the need for nurses continuously increases, it is crucial to recognise and eliminate barriers to entering the Canadian nursing workforce. Additionally, in the face of growing nursing shortages, it is increasingly important to identify and implement strategies that minimize “brain waste” and decrease the loss in human capital in Canada (Baumann et al., 2006; Kolawole, 2009, p.185). Findings from this scoping study will add to the existing evidence by examining the types and sources, as well as the range and scope of literature that addresses barriers and strategies to registration for IENs.

### **Research Question**

This scoping study aims to answer the following research question: What are the barriers and strategies to timely nursing registration for IENs in the existing published and grey literature?

### **Study Objectives**

The objectives of this study are as follows: a) to examine the existing literature on the barriers and strategies to timely nursing registration for IENs and identify key themes b) to provide an overview of the amount, types and sources of literature available on this topic and c) to identify research gaps in order to highlight important areas for future research.



## **Chapter 2: Background and Literature Review**

In this chapter we discuss the main subject areas that provide a backdrop to the topic of nursing registration for IENs. This section will begin with trends in migration, followed by the factors that push and pull IENs to migrate. We will then look at some of the ethical implications of international recruitment and IEN migration. Lastly, we discuss Canadian immigration policy and describe the registration process for IENs.

The migration of IENs and other professionals to developed countries such as Canada has largely been due to globalization (Baumann et al, 2006). Consequently, Canada’s population growth is primarily due to immigration, with 296,346 legal migrants entering Canada in 2016 (Baumann et al., 2006; Citizenship and Immigration Canada [CIC], 2016). Unlike in the past where most immigrants were often unskilled, skilled workers represented 22% (65,606) of the total immigrants in 2016 (Baumann et al, 2006; CIC, 2016). Skilled immigrants face many difficulties with credential verification and obtaining licensure, and often struggle to gain employment in their field (Covell et al., 2016). They tend to experience a phase of low income shortly after arrival, with some never quite reaching the pay level associated with their expertise (Blythe et al., 2009). It has been reported that underemployment of migrants is a significant loss to the Canadian economy, as much as \$5 billion every year (Cheng et al., 2013). In 2005, skilled workers made up 55% of the total immigrants and concerns grew over the number of internationally educated health professionals who were unable to recertify and practice their profession in Canada (Baumann et al., 2006; Covell et al., 2017). In order to help internationally educated health professionals

transition into the workforce, the government of Canada provided \$75 million to the Internationally Educated Health Professionals Initiative (IEHPI), over a 5-year period to improve credential assessment and provide resources for immigrants (Baumann et al., 2006; Health Canada, 2005; MacDonald-Rencz, 2010; Xu & He, 2012). This investment was part of a larger initiative where the Canadian government provided \$300 million to facilitate the integration of internationally trained professionals through providing clear information on the process of obtaining licensure, improving credential review and ensuring the process is transparent, providing professionally relevant language training, increasing access to mentoring and bridging programs and updating the Going to Canada government website (Baumann et al., 2006; Health Canada, 2009).

### **Push and Pull Factors in IEN Migration**

There are many reasons why IENs choose to migrate. The existing literature identifies several push and pull factors that play a part in IENs’ decision to leave their home country (Covell et al., 2014a). Covell and colleagues (2014a), for example, identified thirteen papers that discussed push and pull factors that motivate IENs to migrate. Key factors that push IENs to migrate include difficulty finding employment, poor working conditions, low wages and limited opportunities for professional development and advancement (Blythe et al., 2009; Buchan et al., 2006; Covell et al., 2014a; Kline, 2003; Moyce et al., 2016; Neiterman & Bourgeault, 2013; Salami et al., 2014; Sherwood & Shaffer, 2014). Additionally, political or financial instability, (Covell et al., 2014a; Moyce et al., 2016) as well as unsafe work environments were mentioned as

strong push factors that encouraged IENs to migrate to developed countries (Blythe et al., 2009; Kline, 2003). Moyce et al. (2016) wrote about other reasons why IENs emigrate including personal situations, such as job opportunities abroad for their spouse or to avoid an arranged marriage.

Common factors that pull IENs to a new country include better job opportunities, improved working conditions, higher wages and the opportunity to further their education (Covell et al., 2014a; Higginbottom, 2011; Kline, 2003; Moyce et al., 2016; Neiterman & Bourgeault, 2013; Sherwood & Shaffer, 2014). Personal pull factors also include a better quality of life and educational opportunities for themselves and their families (Covell et al., 2014a; Higginbottom, 2011; Kline, 2003; Moyce et al., 2016; Neiterman & Bourgeault, 2013; Salami et al., 2014; Sherwood & Shaffer, 2014). Furthermore, IENs choose to move to a new country in search of new experiences and challenges, to learn a new language, reunite with family members, gain autonomy as a nurse, work in collaboration with a team of health care professionals, work flexible hours, or to gain religious freedom (Buchan et al., 2006; Higginbottom, 2011; Moyce et al., 2016; Salami et al., 2014). A few studies have looked at the reasons why IENs from the Philippines emigrate and describe that there is a “culture of migration” in the Philippines, where it is expected that nurses will emigrate after completing nursing school (Moyce et al., 2016, p.183; Salami et al., 2014). It can be very difficult for nursing graduates to find employment in the Philippines and even when they are employed, the wages they earn are not enough to support their family members (Salami et al., 2014). Therefore, it is common for parents in the Philippines to encourage their children to work as a nurse

internationally, in order for them to earn a higher income and be able to send money back home to support their families (Covell et al., 2017; Moyce et al., 2016; Salami et al., 2014). In addition to the financial gain and ability to send money back home, Filipino IENs migrate to developed countries such as Canada for a higher social status and to attain Canadian citizenship for themselves and their families (Salami et al., 2014).

### **Ethical Implications of International Recruitment and IEN Migration**

There has been considerable debate in the literature on the ethics of recruiting nurses from developing countries to fill nursing positions in developed nations (Buchan et al., 2003; Kingma, 2007; Xu & Zhang, 2005). Xu and Zhang (2005) describe that varying perspectives come from stakeholders at “individual, institutional, national and international levels, with overlapping but, more often, different or even conflicting interests” (p.572). For example, at the individual level, nurses from source countries view the recruitment of IENs as advantageous because it provides them with better employment and educational opportunities, increased salaries, as well as a higher quality of life (Xu & Zhang, 2005). However, at the institutional level, health care facilities in developing countries that are already lacking resources and personnel are at the losing end of the spectrum, as international recruitment results in a further loss of skilled health care professionals (Xu & Zhang, 2005).

While it is often assumed that IENs primarily come to Canada through active recruitment and via recruitment agencies, the majority of IENs actually come to Canada as permanent residents (Blythe et al., 2009). Canada does not participate in the active recruitment of nurses at the national level; however, it has been reported that some private

agencies and health authorities at the regional and provincial/territorial levels operate internationally to recruit nurses (Covell et al., 2014a).

Although recruiting nurses from developing countries struggling with significant nursing shortages is unethical, there is consensus that nurses have the fundamental right to move freely and migrate (Baumann et al., 2006; Xu & Zhang, 2005). According to the Position Statement on Ethical Nurse Recruitment, the International Council of Nurses (ICN, 2001) state that they “recognize the right of individual nurses to migrate and confirm the potential beneficial outcomes of multicultural practice and learning opportunities supported by migration while acknowledging the possible adverse effect of international migration on health care quality” (p.1). As emphasized by the ICN (2001), the mobility of nurses is important because of the many benefits it brings to the nursing profession including allowing its members to increase their competence and further their careers. However, importance should be placed on workforce planning and strategies for the effective recruitment and improved retention of domestic nurses in order to prevent “brain drain” in developing countries (Xu & Zhang, 2005). Furthermore, given the global shortage of nurses, it is crucial that destination countries ensure that IENs are successfully integrated into their healthcare systems and that their human capital is not wasted (Baumann et al., 2006; Moyce et al., 2016).

### **Nurse Migration: Canadian Immigration Policy**

Variations in yearly migration rates are influenced by policies and changes in demand over time (Baumann et al., 2006). In the 1990s, migration rates decreased in Canada when health care system restructuring led to a lower need for nurses (Baumann

et al., 2006). At present, the demand for nurses has increased due to the aging nursing workforce. Immigration and IENs will continue to play a significant part in the growth of the nursing workforce as the baby boomers retire (Baumann et al., 2006).

The 2001 *Immigration and Refugee Protection Act* (IRPA) is the main immigration policy that regulates immigration to Canada (Government of Canada, 2019a). The IRPA aims to reunite families in Canada, contribute to the Canadian economy and offer protection to refugees (Covell et al., 2017; Government of Canada, 2019a). Immigrants come to Canada as permanent residents under the family, economic or refugee class (Baumann et al., 2006). Nurses can also come to Canada on temporary visas (Baumann et al., 2006). Since 2006, Canada’s immigration policies have been changing with a greater focus placed on economic class immigrants, those with the experience and skills to strengthen the Canadian economy (Ahmad, 2013). The Federal Skilled Worker Program falls under the economic class immigration category, which uses a points system when selecting immigrants (Ahmad, 2013). Applicants require a minimum of sixty-seven points out of a total of one hundred points to be eligible (Government of Canada, 2019b). Individuals scoring less than sixty-seven points will not qualify for the Federal Skilled Worker Program (Government of Canada, 2019b). Applicants receive a greater number of points based on their language skills, education level (higher points for a master’s degree or Ph.D.), and professional experience (Ahmad, 2013; Covell et al., 2017). Additionally, higher points may be awarded based on factors such as age, confirmed employment offer, spouse’s education, having Canadian relatives and prior work experience in Canada

(Ahmad, 2013; Covell et al., 2017). The IRPA does not limit applicants based on their ethnicity, race, country of birth or education (Covell et al., 2017). It supports permanent residency of immigrants with high human and social capital, those who are able to contribute to and strengthen the country’s economy using their experience and skills (Covell et al., 2017).

In 2015, the Canadian government introduced the Express Entry path in order to expedite the entry of skilled workers (Government of Canada, 2020). Express Entry is an online system created to manage applications specifically from skilled workers (Government of Canada, 2020). Applicants who are eligible must submit an Express Entry profile online. Applicants’ profiles are ranked using a points-based system and those with the highest scores are invited to apply for permanent residence (Government of Canada, 2020). Applicants must fully complete their applications for permanent residence within 90 days if they receive an invitation (Government of Canada, 2020). The Canadian government aims to process complete applications within 6 months (Government of Canada, 2020).

Previously, some IENs also entered Canada through the live-in caregiver program with the plan to become registered as a nurse (Baumann et al., 2006). IENs who entered through the live-in caregiver program can only apply to become permanent residents once they have obtained two years of work experience in the program (Government of Canada, 2019c). At present, the live-in caregiver program is no longer open to new applicants (Government of Canada, 2019c).

### **Characteristics of IENs in Ontario**

IENs come to Canada from a variety of source countries. India (49.9%) and the United States (12.8%) were the main source countries of internationally educated RNs registered as new CNO members in 2016 (CNO, 2018a). Among internationally educated RPNs registered as new members in 2016, the top source countries were India (50.8%) and the Philippines (39.0%) (CNO, 2018a).

A CNO (2018a) report shows that the average age of new internationally educated RNs and RPNs was 33 years of age in 2016. Additionally, 81.2% of internationally educated RNs and 78.9% of internationally educated RPNs were less than 40 years of age (CNO, 2018a). Between 2008 and 2016, the average age of new IENs has stayed fairly constant, which is an important factor in countering the aging nursing workforce in Canada (Baumann et al., 2006; CNO, 2018a).

Compared to the rest of the provinces and territories in Canada, Ontario has the greatest number of IENs (CIHI, 2019). According to the CIHI (2019), there were a total of 37,370 registered internationally educated nurses in Canada in 2019, with 18,543 (49.6%) of them in Ontario alone (CNO, 2020d).

It is unclear how many IENs or other internationally educated health professionals are currently living in Canada, since immigration records are kept only by applicant class (Baumann et al., 2006). IENs registered with a governing body for nurses (i.e., the CNO) can be accounted for, however since many IENs are unable to recertify and practice in Canada, the actual number of internationally trained nurses is likely much greater (Baumann et al., 2006; Covell et al., 2015).



Prior to 2011, the majority (53.4%) of people who immigrated to Canada settled in Ontario (Ontario Ministry of Finance, 2016). In recent years, the distribution of newcomers is more even across Canada (Ontario Ministry of Finance, 2016). Of the 1.2 million immigrants who entered Canada between 2011 and 2016, most (39.0%) still chose to settle in Ontario, while 17.8% chose to settle in Quebec, 17.1% in Alberta, 14.5% in British Columbia, and 11.7% in the rest of Canada (Ontario Ministry of Finance, 2016).

### **IEN Registration Process**

To begin the process of registration, IENs must first send their documents, educational credentials, and details of their work experience to the National Nursing Assessment Service (NNAS) in order for them to be assessed (CNO, 2017a). The NNAS uses a consistent approach and standardized tools when verifying applicants’ documents (CNO, 2017a). The NNAS will let applicants know if they need to complete a language proficiency test as part of their application (CNO, 2017a). Once the NNAS has completed a document assessment, they will provide an advisory report and notify the applicant when they can apply for nursing registration (CNO, 2017a).

Applicants who would like to apply to practice as an RN or RPN in Ontario for example, would then apply to the CNO, which is the regulatory body for nursing in Ontario (CNO, 2017a). Each province and territory in Canada has a separate nursing regulatory body that decides whether applicants are eligible to practice (CNA, 2015). Applicants are required to provide evidence of practice which shows the College that they have experience practicing as a nurse within the last three years or that they have

graduated from a nursing program within the last three years (CNO, 2017a). Once assessed, the CNO might recommend either that the IEN be referred to the IEN Competency Assessment Program (IENCAP) or complete the Competency Assessment Supplement (CAS), the IEN may have to participate in a bridging program, or they may be approved to take the national entry-to-practice exam (CNO, 2017a). RN applicants will be referred to take the IENCAP if their educational credentials are not equivalent to the CNO education requirements (CNO, 2020c). The IENCAP consists of a multiple-choice test and an Objective Structured Clinical Examination (OSCE) that assesses IENs’ nursing knowledge, skill and judgement (CNO, 2020c). RPN applicants will be asked to complete a CAS if there are gaps in their nursing education (CNO, 2017b). A CAS is a written document that RPNs will complete addressing the nursing competency gaps that were identified by the College (CNO, 2017b). Once the IEN receives approval from the CNO to take the entry-to-practice exam, they will be required to successfully complete a registration and jurisprudence exam (CNO, 2018b). The jurisprudence exam tests the applicant’s knowledge of the health care laws and regulations in Ontario. If the IEN is applying to practice as an RN, they will be required to pass the National Council Licensure Examination (NCLEX-RN) (CNO, 2018b). If the IEN is applying as an RPN, they will need to pass the Canadian Practical Nurse Registration Examination (CPNRE) (CNO, 2018b). According to the CNO (2017a), the approximate time guideline for an IEN to fully complete the registration process can be anywhere from 3-18 months.

## **Summary and Rationale**

As the demand for nurses continuously increases, it is extremely important to recognise and eliminate barriers to IENs entering the nursing workforce. Additionally, in the face of growing nursing workforce shortages, it is crucial to identify and implement strategies that reduce “brain waste” and decrease the loss in human capital (Kolawole, 2009, p.185). Findings from this scoping study will contribute to the existing evidence-base. While there are a handful of publications that focus on the topic of recertification or workplace integration, they look at the perspectives of internationally educated health professionals or internationally educated professionals as a whole (Cheng et al., 2013; Covell et al., 2016). For this reason, this scoping study is looking specifically at internationally educated nurses and exclusively at the process of obtaining timely nursing registration. Findings from this scoping study have significant implications for nurse staffing and policies and practices to improve the strength, stability, and diversity of the nursing workforce in Ontario/Canada.

## **Chapter 3: Methodology**

### **Scoping Review**

A scoping review was chosen in order to answer the research question, as this study aims to develop a broad understanding of the existing literature on the barriers and strategies to timely nursing registration for IENs. This scoping review is guided by an adapted five-stage version of Arksey and O’Malley’s (2005) methodological framework for scoping studies: (1) identifying the research question, (2) identifying relevant studies, (3) study selection, (4) charting the data and (5) collating, summarizing, and reporting the results. Arksey and O’Malley’s framework is used widely and provides a strong methodological foundation for researchers conducting a scoping review (Levac et al., 2010). While there is no universal definition of a scoping review, Mays and colleagues (2001) stated that scoping reviews “aim to map the key concepts underpinning a research area and the main sources and types of evidence available” (p.194). Additionally, Davis et al. (2009) wrote that a scoping review includes the “synthesis and analysis of a wide range of research and non-research material to provide greater conceptual clarity about a specific topic or field of evidence” (p.1386). Therefore, the purpose of a scoping review is to address broader topics using a wide variety of study designs, as well as to summarize the published and grey literature on a specific topic, to provide an idea of the extent of literature that exists in that area (Arksey & O’Malley, 2005; Covell et al., 2014a; Levac et al., 2010).

Arksey and O’Malley (2005) identified four situations where a scoping review would be an appropriate method to use: (1) when examining the extent, range and

nature of research activity, (2) when determining the value of undertaking a full systematic review, (3) when summarizing and disseminating research findings and (4) when identifying research gaps in the existing literature. Since this study aims to examine the extent and nature of the research, summarize the published and grey literature to develop a broad understanding of the literature that exists, as well as identify gaps in the research, a scoping review is the most appropriate method for this study. The sections to follow will describe the methodological process used to conduct this scoping review and will reflect the stages of the framework outlined by Arksey and O’Malley.

### **Stage 1: Identifying the Research Question**

Scoping studies aim to address broader topics and summarize a wide range of literature on a specific topic, to provide an idea of the amount of research that exists in that area (Covell et al., 2014a; Levac et al., 2010). Since the goal of a scoping study is to convey the breadth of a topic, the research questions tend to be broad (Levac et al., 2010). The research question for this scoping study was relatively broad and captured a wide range of literature to establish an understanding of the existing research. The research question is as follows: *What are the barriers and strategies to timely nursing registration for IENs in the existing published and grey literature?*

### **Stage 2: Identifying Relevant Studies**

#### ***Search Strategy***

In order to ensure that the search strategy was comprehensive, it was created in consultation with the university librarian who is experienced in scoping review

methodology. The following keywords were used alone and in various combinations: certification, credential\*, foreign educated nurse\*, foreign nurse\*, foreign trained nurse\*, international nurse\*, internationally educated nurse\*, internationally trained nurse\*, licensure, nurse\*, registration and regulation\*. The search was conducted between August and October of 2019.

Since initial database searches yielded a high number of results, a limit was placed on the publication date and language of the search to allow for more current articles and a more manageable number of results. Additionally, due to time constraints and the lack of translators, the search results were limited to English language articles published from 2005 to 2019. Furthermore, the rationale for limiting the publication date is because 2005 was the year that entry to practice requirements in the province of Ontario changed to a four-year baccalaureate degree for registered nurses (RNs) and a two-year diploma for registered practical nurses (RPNs) (Kolawole, 2009). These changes are relevant for IENs seeking registration as RNs or RPNs in Ontario (CNO, 2018a; Kolawole, 2009).

Seven electronic databases were chosen for this scoping review after consultation with the university librarian, based on the probability of capturing articles that answer the research question. The databases selected were: 1) CINAHL 2) Embase 3) MEDLINE 4) HealthSTAR 5) PsycINFO 6) Sociological Abstracts 7) Web of Science. The Embase, MEDLINE, HealthSTAR and PsycINFO databases were searched using the Ovid interface. CINAHL was chosen as it is the most comprehensive nursing research database, ideal to fully explore the research topic of internationally educated nurses.

Embase and MEDLINE were chosen because they contain a large selection of international biomedical publications, which made it possible to retrieve articles from all over the world. Ovid HealthSTAR was included because it contains literature that focuses on non-clinical areas of health care delivery, such as the licensure of IENs (Ovid HealthStar Database Guide, 2019). Additionally, PsycINFO, Sociological Abstracts and Web of Science were selected as they are multidisciplinary databases that cover psychology, behavioural science, social sciences as well as arts and humanities, and searching them would ensure that potentially relevant articles published in different fields would not be missed.

A scoping review was best suited for this research question because it allowed us to examine an extensive range of research and non-research articles including published, peer-reviewed studies, as well as significant grey literature (Davis et al., 2009). Grey literature is defined as "multiple document types produced on all levels of government, academics, business, and organization in electronic and print formats not controlled by commercial publishing" (Grey Literature Network Service, 2021, para. 2). Excluding important research reports, government documents, evaluations, theses, and dissertations from the grey literature would result in missing key sources of evidence. The grey literature was found by searching the websites of local, provincial, and federal governments; immigrant and settlement organizations; and nursing regulatory bodies and associations such as the CNO and the CNA. The reference lists of articles were also hand searched to identify additional apposite publications.

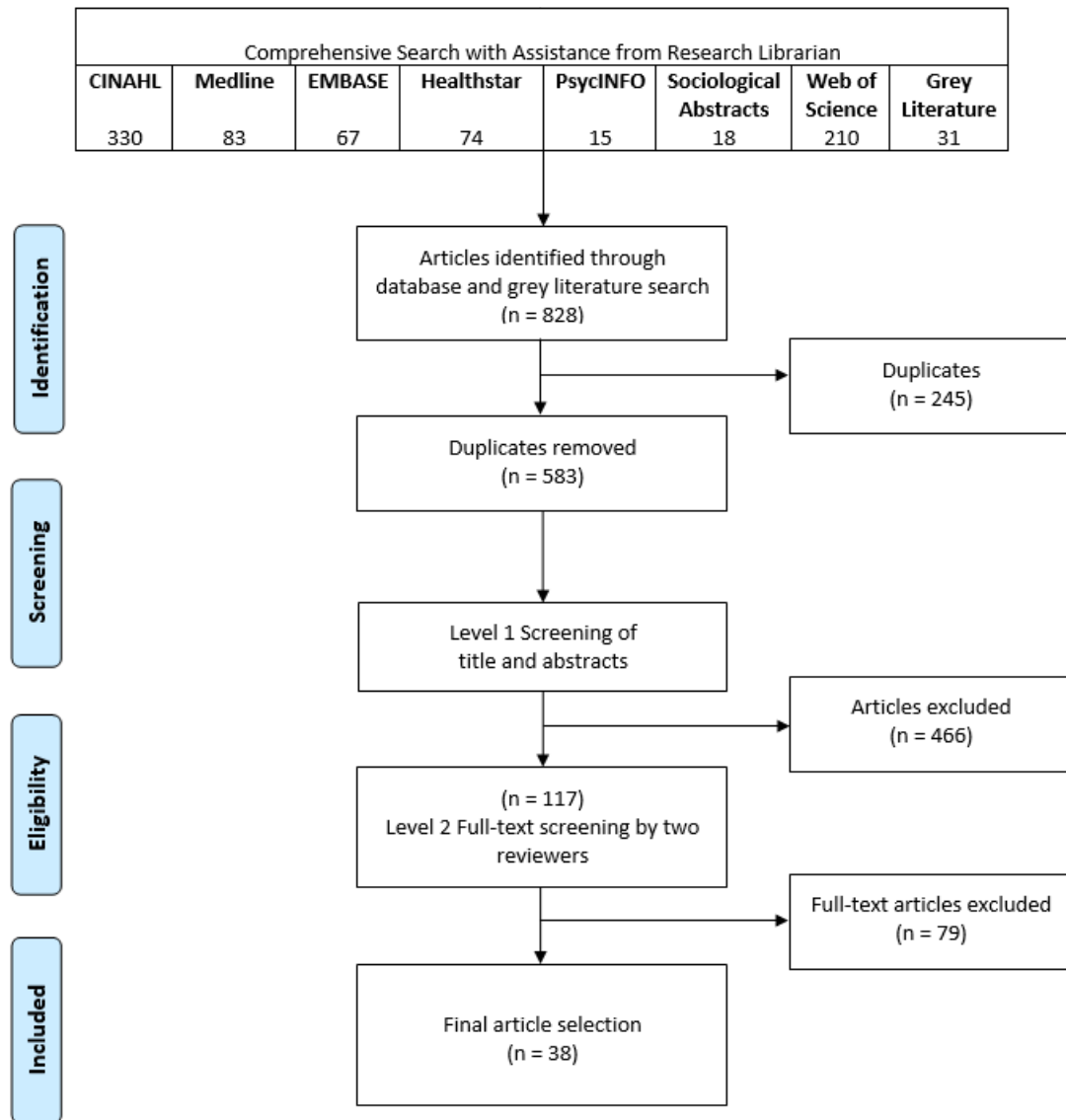
### **Stage 3: Study Selection**

The inclusion and exclusion criteria were developed during the initial review of titles and abstracts. The initial search yielded 828 citations and was limited to English language articles published from the year 2005 to 2019. These citations were imported into the EndNote X9 software and 245 duplicates were removed, leaving 583 citations. The primary author screened the articles based on title, abstract reviews and eligibility criteria. This preliminary screening was broad and was inclusive of articles even when the title and/or abstract was unclear. After the initial screening, 466 articles were excluded, and 117 articles were remaining. Based on greater familiarity with the literature, the inclusion and exclusion criteria were revised to reflect the research question more accurately. The citations were also loaded onto the Rayyan software in order to test reviewer reliability (Rayyan Systems Inc., 2021). The remaining 117 articles were read in full by the author and by a second reviewer (MC), and the inclusion and exclusion criteria were applied. Any disagreements between reviewers during this stage were resolved by consensus-based discussion. When a disagreement was not resolved by discussion, a third reviewer determined whether the article should be included in the scoping review. After the full-text screening, 38 articles were selected for inclusion in the scoping review. The process of literature selection is outlined in the flow diagram in Figure 1.



**Figure 1**

*Literature Selection Flow Diagram*



***Inclusion and Exclusion Criteria***

Articles were included if they focused on IENs and either barriers to timely nursing registration or strategies to obtaining nursing registration. Although some articles focused on internationally educated health professionals (IEHPs) and

internationally educated professionals (IEPs), these were included because in addition to other professions, a significant focus was still on internationally educated nurses. Articles were excluded for not discussing barriers or strategies to obtaining nursing registration for IENs, and for focusing on the transition of new graduate nurses, the use of simulation in the undergraduate nursing curriculum, or the scope of practice for midwives and nurse practitioners. Table 1 provides a summary of the inclusion and exclusion criteria.

**Table 1**

*Inclusion and Exclusion Criteria*

|                       | <b>Included</b>                                                                                                                                                                                            | <b>Excluded</b>                                                                                                                                                                                                     |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Population</b>     | <ul style="list-style-type: none"> <li>Articles that focus on internationally educated nurses</li> </ul>                                                                                                   | <ul style="list-style-type: none"> <li>Articles that focus on undergraduate nursing students, midwives, nurse practitioners, etc.</li> <li>Articles that do not focus on internationally educated nurses</li> </ul> |
| <b>Context</b>        | <ul style="list-style-type: none"> <li>Articles that include barriers to timely nursing registration or strategies to obtaining timely nursing registration for internationally educated nurses</li> </ul> | <ul style="list-style-type: none"> <li>Articles that did not include either barriers or strategies to obtaining nursing registration for internationally educated nurses</li> </ul>                                 |
| <b>Language</b>       | <ul style="list-style-type: none"> <li>Articles where the abstract and full text are written in English</li> </ul>                                                                                         | <ul style="list-style-type: none"> <li>Articles where the abstract or full text are written in a language other than English</li> </ul>                                                                             |
| <b>Year published</b> | <ul style="list-style-type: none"> <li>Articles published from 2005-2019</li> </ul>                                                                                                                        | <ul style="list-style-type: none"> <li>Articles published prior to 2005</li> </ul>                                                                                                                                  |

|                         |                                                                                                                                                                                              |  |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Publication type</b> | <ul style="list-style-type: none"> <li>• Peer-reviewed published and grey literature</li> <li>• Primary and secondary research</li> <li>• Reports</li> <li>• Theses/dissertations</li> </ul> |  |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

#### **Stage 4: Charting the Data**

##### ***Data Extraction***

The primary author read and reviewed the selected articles in full to extract the relevant data and enter the key information into a data charting form. The main information points extracted were the author and title, location of the study, the study type/methodological design (qualitative, quantitative, mixed methods, literature review, article, etc.), the purpose of the study, study population, key themes and findings. The level of detail included during data extraction was determined by the primary author, to include information that answered the research question that guided this scoping review.

#### **Stage 5: Collating, Summarizing and Reporting the Results**

Once the key information points were inputted into the data charting form, the data was reviewed in detail to identify the best way to report the findings. Arksey and O’Malley (2005) suggest a numerical and thematic analysis for organizing and presenting the findings from scoping reviews. Following Arksey and O’Malley’s recommendations, the numerical analysis for this scoping review included information regarding the “extent, nature and distribution” of the sources of evidence that were included (2005, p.27). The primary author used Microsoft Excel spreadsheets and created tables tallying the number of studies that included a specific informational point (Arksey & O’Malley, 2005). The

numerical analysis included the number of published and grey literature that was included, the geographic distribution of sources, the distribution of sources by type/methodological design, and the frequency of sources by year of publication. Information in this section of the analysis emphasized the key research areas in terms of study design, research methodology and location of research (Arksey & O’Malley, 2005).

For the thematic analysis, Arksey and O’Malley (2005) recommended organizing the literature into main themes. The primary author determined what key themes would be most relevant to understanding the topic of barriers and strategies to registration for IENs. The major barriers and strategies identified in the literature became the main unit of analysis and the thematic analysis was organized around these 7 categories (Arksey & O’Malley, 2005). Tables were created for each major barrier or strategy and were used to organize the information from each article that discussed the specific barrier or strategy. As outlined by Arksey and O’Malley (2005), the aim of scoping studies is not to aggregate results from various studies. Thus, we did not attempt to synthesize the findings from this scoping study.

## **Chapter 4: Results**

### **Extent of Literature**

The initial database search resulted in a total of 583 results after duplicate articles were removed. After full-text screening, 38 pieces of relevant literature were selected for inclusion in the review. The selected literature included 35 pieces of published literature and 3 pieces of grey literature.

### **Nature of Literature**

#### ***Methodological Design***

Of the selected literature, 53% were primary research studies, while 47% were secondary research studies using previously collected data, such as literature reviews and editorials. Table 2 provides a breakdown of the sources according to type/methodological design. Almost half of the selected studies used qualitative research methodology (n = 16; 42%), while 5% (n = 2) used quantitative methodology. Both quantitative studies used a cross-sectional design. Of the studies that used a qualitative design, 56% were descriptive, while 44% used other qualitative designs such as focused ethnographies, case studies or phenomenology. Two studies employed a mixed methods design. Additionally, four of the sources included were literature reviews; two were narrative or traditional literature reviews, one was a scoping review, and the remaining source was a systematic review. Of the selected literature, three sources were found in the grey literature including two research reports and one dissertation. The remaining sources included were relevant electronic articles and editorials (n = 12; 32%).

**Table 2***Frequency of Sources by Type/Methodological Design*

| <b>Type/Methodological Design</b>                                                 | <b>Number of articles (% total)</b> |
|-----------------------------------------------------------------------------------|-------------------------------------|
| Article/Editorial                                                                 | 12 (31.6)                           |
| Qualitative descriptive                                                           | 9 (23.7)                            |
| Qualitative other (e.g., ethnography, case study, phenomenology, grounded theory) | 7 (18.4)                            |
| Literature review                                                                 | 4 (10.5)                            |
| Quantitative, observational (e.g., cross-sectional, cohort studies)               | 2 (5.3)                             |
| Mixed methods                                                                     | 2 (5.3)                             |
| Report                                                                            | 2 (5.3)                             |
| Quantitative, experimental (e.g., randomized controlled trial)                    | 0 (0)                               |
| <b>Total</b>                                                                      | <b>38 (100)</b>                     |

**Distribution of Literature***Geographic Distribution*

Most of the selected studies were conducted in Canada (n = 24; 63%), followed by the United States (n = 3; 8%), the United Kingdom (n = 2; 5%) and New Zealand (n = 2; 5%). One study was conducted in Canada and the United Kingdom as interviews were held with stakeholders from both countries. Other included studies were

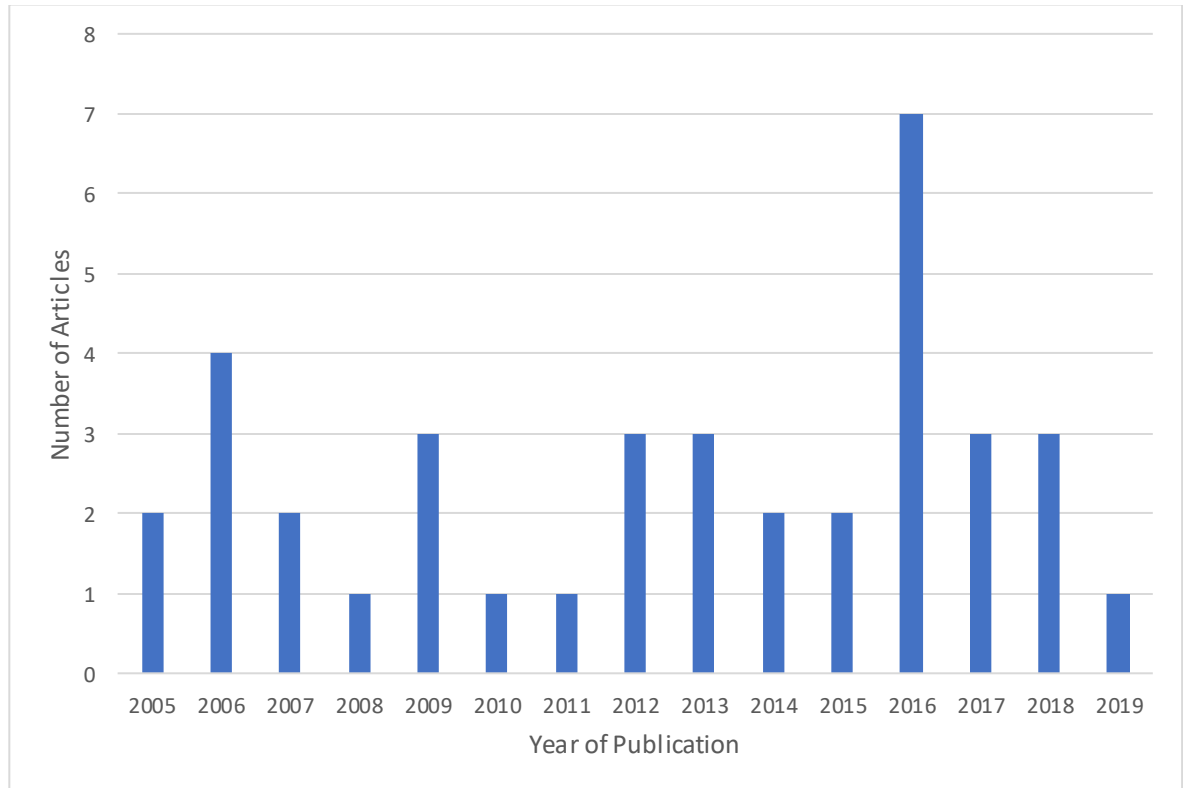
conducted in Sweden (n = 1; 3%), and Australia (n = 1; 3%). Almost half (n = 11; 46%) of the Canadian studies were conducted in the province of Ontario. Three literature reviews included sources from multiple countries (n=3; 8%) and one literature review included sources from a single country (Canada).

***Year of Publication***

All of the sources included in this scoping review were published between 2005 to 2019, based on the inclusion and exclusion criteria outlined for this study. As shown in Figure 2, the number of articles published increased in the year 2006 (n = 4) and peaked in 2016 (n = 7). The increase in the number of articles seen in 2006 may be associated with the changes in entry to practice requirements that occurred in 2005, requiring all Ontario RNs to have a baccalaureate degree and all RPNs to have a two-year diploma in order to practice nursing.

**Figure 2**

*Frequency of Articles by Year of Publication (n = 38)*



***Final Selected Literature***

Of the chosen literature some studies focused on internationally educated health professionals (IEHPs) and internationally educated professionals (IEPs) in general, including IENs. Six of the selected studies focused on IEHPs and IEPs (16%) and the remaining 84% (n = 32) of studies focused solely on IENs.



## **Thematic Findings**

The findings from this scoping review were summarized according to the seven themes that emerged from the thematic analysis: timely information, credential assessment, obtaining documents, language requirements, nursing registration costs, bridging programs and the nursing registration exam. Each theme includes a number of barriers and strategies to timely nursing registration for IENs.

### ***Timely Information***

Several studies have highlighted the importance of applicants receiving accurate information before making the ultimate decision to migrate (Blythe et al., 2009; Covell et al., 2016). Immigrants’ success in their host country can depend on the quality of information and support they were given before they migrated (Baumann et al., 2006). For nurses coming from countries where nursing regulation is considerably different than the country they will be migrating to, receiving the right information during the application process is especially crucial (Baumann et al., 2006). The literature suggests that some IENs did not receive important information regarding the process for re-establishing their nursing careers in their host country, including the various steps they will need to complete in order to become eligible to write the registration exam (Baumann et al., 2006; Blythe et al., 2009; Eriksson et al., 2018; Higginbottom, 2011). Some IENs have also been incorrectly advised or have assumed that they will have no problem finding a job once they migrate because of their score on the points system (Baumann et al., 2006). A lack of accurate information prior to

migration can negatively impact IENs’ ability to become registered as a nurse and to find employment in the destination country.

In the study by Cheng et al. (2013), it was found that internationally educated professionals including IENs, were confused about where to get information or how to begin the process of registration. It was found that resources that were available through the Internet, did not use simple, clear language and IENs reported having difficulty in understanding the information that exists (Jeans, 2006; Jeans et al., 2005; Newton et al., 2012). IENs coming from countries that do not have nursing regulation can have a hard time understanding the process for licensure (Blythe et al., 2009). Jeans et al. (2005) found that some IENs, despite living in Canada for years, believed that they can apply for a nursing position without being licenced.

The literature highlighted programs such as the PASS (pre-arrival supports and services) program funded by the Canadian government, that offers nurse mentorship, a strategy to provide IENs with useful information prior to migration (Jaimet, 2016). The PASS program connects nurses who are planning to immigrate to Canada, to registered Canadian nurses, as well as to nurses who have retired (Jaimet, 2016). The program aims to give IENs information about the different stages of the registration process, provides them with online resources, such as webinars about health care in Canada and offers IENs one-on-one communication with Canadian nurse mentors through Skype or e-mail (Jaimet, 2016).

An important strategy identified in the literature is to complete certain steps of the registration process prior to immigrating, steps such as working on language skills,

verifying and assessing credentials, or passing the licensure exam (Baumann et al., 2006; Covell et al., 2016).

Revamping existing regulatory body and government websites to make them simpler to navigate for IENs is another strategy described in the literature (Kwan et al., 2019). In the study by Kwan and colleagues (2019), educators and other stakeholders found that websites that were updated resulted in more clarity for IEN applicants. They reported that revised websites made it easier for IENs to understand the steps they would need to complete to become licensed, since the necessary information was clearly stated and found directly on the website (Kwan et al., 2019).

### ***Credential Assessment***

The literature identifies the recognition of credentials as a significant barrier to obtaining nursing registration for IENs. Prior to the emergence of national assessment services, regulatory bodies were given the task to assess and validate IEN applicants’ credentials (Baumann et al., 2006). It was reported that because of the different regulatory bodies across Canada, IENs found the process confusing and often made errors such as sending their records to the incorrect regulatory body (Jeans et al., 2005). These errors led to further delays and greater expenses for nurses.

Singh & Sochan (2010) reported that IENs did not know that there was an option to be assessed for RPN and RN streams simultaneously. They expected to be considered for both once they sent their application to the regulatory body (Sochan & Singh, 2007). However, it was found that if they had not initially specified that they wanted to be

assessed for both RPN and RN status, they would have to apply and pay the fees once again (Sochan & Singh, 2007).

Some IENs reported issues with consistency in the credential assessment process and that they knew of cases where two applicants with the same educational qualifications and background were assessed differently (Baumann et al., 2006; Jenkins & Huntington, 2016). In 2015, the National Nursing Assessment Service (NNAS) began assessing IENs’ applications and offered a centralized, pan-Canadian approach to credential assessment (NNAS, 2019). The NNAS uses a consistent approach and standardized tools when assessing IENs’ documents, which lessens the cost and the risk of errors from occurring (CNO, 2017a; Jeans et al., 2005).

In addition to the NNAS, PLAR (Prior Learning Assessment and Recognition) is an important strategy used to help IENs obtain timely registration (Ogilvie et al., 2007). Over the years, the increased need for IENs to upgrade their education has become another obstacle that could prevent them from becoming nurses in their destination country (Baumann et al., 2006). PLAR is used as an alternate option when IEN applicants are not able to prove academic qualifications to the regulatory body (Baumann et al., 2006). PLAR involves assessing and acknowledging skills that have been developed through prior clinical practice experience, nursing courses, independent study, prior work, or volunteer experiences (Jeans et al., 2005; Ogilvie et al., 2007).

### *Obtaining Documents*

According to the literature, the task of securing the necessary documents is another barrier to IENs obtaining licensure. IENs do not always bring the required paperwork with them before migrating, because they are unaware of the requirements for becoming registered as nurses (Kolawole, 2009). When IENs are unable to get their documentation and prove their credentials, many will give up on their pursuit for licensure (Blythe et al., 2009; Salami et al., 2017).

There are several reasons why IENs are unable to obtain their records. IENs who arrived through the refugee class often lack the necessary documents and therefore are unable to prove their employment experience or educational qualifications (Leblanc et al., 2013). Studies found that IENs who came from war torn or dangerous parts of the world, were not able to return to their home countries to retrieve their records due to safety concerns (Eriksson et al., 2018; McGuire & Murphy, 2005). Sometimes universities or colleges have closed down or paperwork has been misplaced, which is why some IENs are unable to get their transcripts (Baumann et al., 2006). Salami et al. (2014) found that IENs who migrated from areas such as the Middle East reported significant challenges in obtaining their documents. IENs who had worked in the Middle East for many years prior to migrating were unable to get their employment verified, because their home country would not cooperate with their requests (Ogilvie et al., 2007; Salami et al., 2014). In cases where IENs are lacking the necessary documents, governing bodies such as the CNO can provide them with the option to complete a statutory declaration instead (Baumann et al., 2006). However, it was found

that IENs and their mentors do not always know that this option is available to them. IENs should be made aware of the possibility of a statutory declaration as this would prevent many IEN applicants from giving up on their applications because they are unable to obtain their documents. (Baumann et al., 2006; Blythe et al., 2009).

One strategy used by IENs to attain their transcripts and records, was depending on their friends and family back home to send them their documentation (Higginbottom, 2011). The main recommendation identified in the literature was for IENs to have as much documentation with them prior to leaving their native countries, in order to minimize challenges and delays in re-establishing their nursing careers (Jeans, 2006).

### ***Language Requirements***

The literature identifies language requirements as a significant barrier for IENs in their pursuit for licensure. In Canada for example, IEN applicants are required to provide proof of recent approved nursing education in English or French or must take a language test to fulfill this requirement prior to obtaining registration (CNO, 2020a). Approved English language tests in Canada include the International English Language Testing System (IELTS) and the Canadian English Language Benchmark Assessment for Nurses (CELBAN) (CNO, 2020a).

IENs’ language skills can make it difficult for them to qualify for or complete educational courses, can hinder their ability to pass the nursing registration exam and can affect their ability to integrate into the workforce (Covell et al., 2016; Jenkins & Huntington, 2015; Moyce et al., 2016; Salami, 2014). There is much discussion about the

different types of language tests available and the most appropriate tests for assessing IENs’ language proficiency, as well as their ability to effectively communicate at work (Covell et al., 2016).

It is evident in the literature that some applicants felt that the IELTS emphasised technical English language skills, instead of effective communication (Jeans et al., 2005; Rumsey et al., 2016). In the UK for example, IEN applicants felt that passing the IELTS exam was the greatest challenge, rather than their proficiency in English (Allan & Westwood, 2016b; Jenkins & Huntington, 2015). Meeting IELTS scores was a source of frustration for many applicants, as it often took multiple tries to successfully pass the test (Allan & Westwood, 2016b). IENs found that resitting the test to meet the high IELTS requirements was not only challenging, but also expensive and delayed their registration (Allan & Westwood, 2016b; Hawkins & Rodney, 2015; Rumsey et al., 2016). A number of IENs resorted to working in lower paying unregulated roles, such as health care aides, while attempting to pass the language test (Allan & Westwood, 2016a).

Prior to the introduction of the CELBAN in 2004, most of the approved language tests did not evaluate IENs’ knowledge of nursing terms, as the tests were not specific to the nursing profession (Neiterman & Bourgeault, 2013; The CELBAN Centre, 2018). Thus, the main benefits of the CELBAN is that it is created to assess nurses and it is a Canadian language test (Baumann et al., 2006). In early 2020, there were only eight testing locations that offered the CELBAN across Canada (The CELBAN Centre, 2020a). However, in September 2020, it was announced that the CELBAN would no longer be offered in-person, but instead would be offered online, beginning in 2021 (The CELBAN

Centre, 2020a). This means that IEN applicants are now able to take the CELBAN in their own home or online at an assigned testing centre (The CELBAN Centre, 2020a).

A key strategy described in the literature is for employers to offer language training and support to IENs working as healthcare aides, so that they can satisfy the language proficiency requirements for bridging programs and nursing registration (Allan & Westwood, 2016a; 2016b). As a result, IENs working in unregulated roles who want to become licensed as nurses would receive the assistance they need and at a time of nursing workforce shortages, human capital would not be wasted (Allan & Westwood, 2016b; Kolawole, 2009). While IENs obtaining employment in lower paying unregulated roles is seen as a barrier to attaining licensure, it was also a strategy, as IENs had the opportunity to improve their language skills while working (Allan & Westwood, 2016a). Another strategy described in the literature were educational programs that collaborated with community colleges to provide IENs with inexpensive English courses to help them successfully complete language assessment tests (Lebold & Walsh, 2006). The literature also recommends having a standardized language exam and ensuring that it is more readily available for IEN applicants (Jeans et al., 2005). Additionally, programs such as the Enhanced Language Training (ELT) initiative are helpful strategies which offer immigrants language training specific to their profession, in order to support their integration into the workforce (Jeans et al., 2005).

### ***Nursing Registration Costs***

According to the literature high financial costs were identified as one of the major barriers to obtaining nursing registration for IENs (Covell et al., 2016; Salami et al.,



2014). In addition to the many expenses related to relocating to a new country, IENs are required to pay for credential verification, language assessment tests, bridging programs, PLAR, educational courses, the nursing registration exam, the jurisprudence exam, as well as fees for registration (Jenkins & Huntington, 2015; McGuire & Murphy, 2005; Mowat & Haar, 2018; Salami et al., 2014). It is not surprising then that several studies report that IENs face significant financial difficulties (Leblanc et al., 2013; McGuire & Murphy, 2005).

An IEN in Ontario for example, can expect to pay the following fees in relation to obtaining nursing registration: \$800 CAD for the NNAS document and credential assessment, \$319 CAD for the IELTS language proficiency test (or \$395 CAD for the CELBAN), \$360 CAD for the National Council Licensure Examination, \$40 CAD for the jurisprudence exam, and \$361.60 CAD for initial registration and membership with the CNO (The CELBAN Centre, 2020b; CNO, 2020b; IELTS, 2021; NCSBN, 2021; NNAS, 2021). Therefore, IENs are required to pay at the very least a total of \$2,000 CAD, which does not include costs for bridging programs, PLAR, or resitting tests. Studies have estimated that the overall amount IENs must pay is between \$1000 and \$20,000 CAD (Jeans et al., 2005; Newton et al., 2012). For IENs, especially those who are jobless or working in lower paying roles, these expenses are significant (Jeans et al., 2005). Many IENs needed to take loans from family members to pay for the licensure process and described borrowing money as “very difficult” (Mowat & Haar, 2018, p. 24).

The literature indicates that due to financial constraints and familial responsibilities, IENs often settle for employment in non-professional positions such as

personal support workers or health care aides (Covell et al., 2016). This makes resumption of their nursing careers even more challenging (Covell et al., 2016). Salami and colleagues (2017) point out that especially for IENs with families to support, immediate expenses such as accommodation, food, transportation costs, etc., take priority over IENs’ desire to resume their nursing career. The lack of finances and the many short-term expenses often lead to IENs putting off or even abandoning their professional goals altogether (Baumann et al., 2006; Ogilvie et al., 2007). The changes in entry to practice requirements that occurred in 2005, requiring all Ontario RNs to have a four-year baccalaureate degree in order to practice nursing, resulted in most IENs needing to upgrade their education (Blythe et al., 2009). For IENs with families to support and who were struggling financially, the additional investment of time and money needed to complete upgrading courses may have caused them to leave the nursing profession (Blythe et al., 2009).

The Canadian government has provided a considerable amount of funding for the assessment of credentials and for projects focused on language training (Baumann et al., 2006). Studies have identified financial aid that is provided by the government to support IENs and help them pay for registration and course fees (Covell et al., 2016). For example, The Ontario Special Bursary Program (OSBP) is a financial assistance program for students that helps them cover tuition and other education related expenses (Baumann et al., 2006; Ontario Ministry of Training, 2008). This bursary program can be especially helpful for IENs enrolled in a bridging or upgrading program. Additionally, IENs may be eligible for loans of up to \$15,000 from a program called Windmill

Microlending, which offers loans to immigrants to help them cover licensing costs, educational courses, or training that they need to work in their profession (Helping Newcomers Work, 2019). One downside is that when financial aid is available, it is often specific to educational expenses (such as textbooks and tuition) and does not help IENs cover day-to-day costs including transportation or daycare expenses (Covell et al., 2016).

A strategy for IENs noted in the literature is to complete certain steps of the licensure process while they are still living and working in their home country (Singh & Sochan, 2010). Having their education and credentials verified, working on language skills, and writing the nursing registration exam prior to immigrating, would reduce the time spent unable to practice as a nurse in the destination country and lessen their financial stress (Covell et al., 2016; Singh & Sochan, 2010).

### ***Bridging Programs***

A key strategy described in the literature in supporting IENs to obtain timely nursing registration and gain the competencies to practice nursing in a new country, is participating in a bridging program (Covell et al., 2018). Baumann et al. (2006) define bridging as, “programs in which diploma-prepared nurses take courses leading to a baccalaureate degree and upgrading programs in which nurses become eligible to take the licensure examination or enter a program leading to a baccalaureate degree” (p.18).

IEN destination countries including Canada have provided a considerable amount of funding for bridging and upgrading programs, in order to assist IENs as they gain the knowledge and skills they need to practice their profession in a new country (Covell et al., 2018; Xu & He, 2012). In 2006 for example, the federal and provincial

levels of government in Canada allocated \$300 million to facilitate the integration of internationally educated professionals through providing timely and clear information on the process of obtaining licensure, providing professionally relevant English language training and increasing access to bridging programs (Baumann et al., 2006; Health Canada, 2009). Additionally, the Canadian government provided \$75 million to the Internationally Educated Health Professionals Initiative (IEHPI), over a 5-year period to improve credential review and provide resources such as mentoring and bridging programs (Baumann et al., 2006; Health Canada, 2005; Xu & He, 2012).

Bridging programs are offered to help IENs “bridge” gaps in professional experiences and education in preparation for the licensing examination (Xu & He, 2012, p. 216). In Canada, these programs include clinical practice placements, as well as academic study and can differ in length from 6 months to 3 years (Xu & He, 2012). The bridging programs described in the literature include content such as clinical skills support, professionally relevant language/communication support, nursing competencies and scope of practice, information about the healthcare system in the destination country and licensing exam preparation (Baumann & Blythe, 2009; Coffey, 2006; Xu & He, 2012). IENs can also choose to take workshops on job searching strategies and electronic documentation, based on their particular needs (Atack et al., 2012; Xu & He, 2012). Bridging programs are run by colleges/universities, collaborative programs, or non-profit organizations (Baumann et al., 2006; Xu & He, 2012). Since many IENs need to work while completing these programs, they are also

offered as evening classes, as well as through distance education (Baumann et al., 2006; Xu & He, 2012).

Key barriers found in the literature include the limited accessibility of bridging programs, the lack of a common curriculum, temporary funding, and restricted capacity of these programs (Baumann et al., 2006; Neiterman & Bourgeault, 2013). Most bridging programs were found to be limited to the major cities and when distance learning was offered, the entire program could not be completed in this way (Baumann et al., 2006). IENs unable to travel far distances may not have been able to enrol in a bridging program due to this limitation. Studies have also identified a number of gaps in the curriculum of bridging programs including nursing concepts such as health assessment, sexuality, gerontology, dementia, as well as interprofessional practice education (Atack et al., 2012; Sochan & Singh, 2007).

The literature provides some recommendations for best practices regarding the curricula of bridging programs including orientation to the destination country’s healthcare system, occupation-specific language support, content addressing nursing practice standards, information about the destination country’s culture and philosophy of nursing and healthcare, as well as a clinical placement component (Atack et al., 2012; Singh & Sochan, 2010; Sochan & Singh, 2007).

While the bridging programs described in the literature varied in content and length, they were seen as beneficial by IENs and facilitators to passing the regulatory exam (Covell et al., 2017). In the study by Covell and colleagues (2018), IENs found that their participation in bridging programs helped them to learn about Canadian culture

and get a better understanding of the health care system, as well as the responsibilities of nurses in Canada. Another strength found in the literature was that enrolling in a bridging program helped IENs to build their nursing-specific vocabulary and improve their communication skills (Covell et al., 2018). Additionally, it was found that IENs from lower income countries and those with fewer years of nursing experience found it more beneficial to enrol in a bridging program (Covell et al., 2018). In an attempt to streamline the curriculum for bridging programs, the Canadian Association of Schools of Nursing (CASN) created a Pan-Canadian Framework of Guiding Principles and Essential Components for IEN bridging programs (Canadian Association of Schools of Nursing [CASN], 2012; Neiterman & Bourgeault, 2013). Finally, in the study by Grymonpre et al. (2017) an interprofessional competency toolkit (ICT) was suggested to be incorporated into the curriculum of bridging programs for IENs. Collaboration is a significant component of the nursing registration exam (Grymonpre et al., 2017). The ICT was created to help IENs learn about interprofessional collaboration to help them as they write their registration exam and to facilitate their entry into the workforce (Grymonpre et al., 2017).

### ***The Nursing Registration Exam***

The final step in the registration process for all IENs is passing the nursing licensure exam. Completing all the registration requirements to qualify to write the registration exam can take IENs many months or for some even several years (Blythe & Baumann, 2009). Passing the licensing exam was another common barrier to registration for IENs that was identified in the literature (Blythe et al., 2009; McGuire & Murphy,

2005; Neiterman & Bourgeault, 2013). According to data reported by the CNO, in 2005, 93% of RN applicants educated in Ontario passed the licensing exam on their first try, compared to only 53% of internationally educated RN applicants (Blythe et al., 2009; CNO, 2006). Similarly, 86% of RPN applicants educated in Ontario passed the exam on their first try, compared to only 25% of internationally educated RPN applicants (Blythe et al., 2009; CNO, 2006). Even years later in 2014, the pattern continued with 85% of RN applicants educated in Ontario passing the exam on their first write, while only 38% of RN applicants educated outside of Ontario (including IENs) passed on their first attempt (CNO, 2015).

For IENs whose primary language was not English, the lack of familiarity with English was a significant disadvantage when writing the licensing exam (Baumann et al., 2006). When English was not their main language, IENs reported requiring additional time to understand the questions and finish the exam (Jeans et al., 2005; Newton et al., 2012). IENs that were used to writing multiple choice tests had an easier time completing the registration exam, while IENs who had less knowledge of English and who did not have much experience with answering multiple choice questions found it to be challenging (Baumann et al., 2006; Jeans et al., 2005). According to Baumann et al. (2006), IENs who had been taught mainly through hands on training in their country of origin had a tough time getting accustomed to the way nursing was taught and reflected in the registration exam in Canada. One of the challenges that IENs with many years of professional experience face, is the tendency to over think the exam questions because of their prior nursing knowledge (Newton et al., 2012). The licensure exam is created

to reflect entry-level nursing competency, which is why senior IENs with a great deal of nursing experience may find it challenging (Jeans et al., 2005).

Some IENs come to Canada as live-in caregivers where they are employed as nannies or care aides, with the hope of eventually pursuing nursing registration (Baumann et al., 2006). However, IENs who come to Canada through this path and want to become registered as a nurse experience a number of obstacles along the way (Baumann et al., 2006). Live-in caregivers are only able to apply for a nursing licence in Canada once they are permanent residents (Blythe et al., 2009). IENs who entered Canada through the live-in caregiver program can only apply to become permanent residents once they have obtained two years of work experience in the program (Government of Canada, 2019c). Even after gaining two years of work experience, live-in caregivers usually had to wait longer to obtain their permanent resident status (Salami, 2014). In the study by Salami (2014), some live-in caregivers waited a total of 3-7 years before becoming a permanent resident. The long wait results in live-in caregivers losing their clinical skills and their time away from nursing practice makes it even harder for them to pass the licensure exam (Salami et al., 2014). Additionally, it is difficult for live-in caregivers to take courses, attend information sessions or study for the licensure exam because they are required to work long hours Monday to Friday, leaving only the weekends for studying (Hawkins & Rodney, 2015; Salami et al., 2014).

Many strategies were described in the literature that have facilitated IENs to successfully pass the registration exam. IENs mentioned strategies such as getting tips and help studying from friends who have passed the exam, working on improving their



language proficiency, enrolling in bridging programs, reading articles from nursing journals, studying from exam review books and completing practice questions (Covell et al., 2017). Additionally, Covell et al. (2017) found that predictors of passing the registration exam on the first try included IENs who had prior work experience (approximately between 3-5 years) and those who had help studying for the exam from friends, family or coworkers. McGuire and Murphy (2005) found that IENs were more likely to pass the registration exam when there was a shorter time gap between when they graduated from their nursing program to when they wrote the registration exam.

A strategy found in the study by Parrone and colleagues (2008) that helped IENs pass the nursing registration exam was the use of a learning strategy where IENs participated in a 3-week review course, the Health Education Systems Incorporated (HESI) exam and remedial training (when required). Using this strategy, all IENs in the study were able to successfully pass the licensure examination (within 2 attempts) (Parrone et al., 2008).

Nursing programs such as Creating Access to Regulated Employment (CARE) in Ontario, have been a key strategy for allowing more IENs to write the licensing exam and the program has significantly increased IENs’ exam pass rate (Baumann et al., 2006; Kolawole, 2009). CARE students take courses such as Health Assessment, Clinical Skills, English for nurses, Nursing in Ontario, etc., which helps to introduce them to the culture of nursing in Canada (Kolawole, 2009). IENs appreciated the course content, skills, and opportunities that the program offered, and CARE program graduates had a high exam pass rate (Baumann et al., 2006).

## **Chapter 5: Discussion**

The findings of this scoping review have presented an overview of the extent and type of research that exists about the barriers and strategies to timely nursing registration for IENs. A summary of the key themes identified, recommendations, research gaps and areas for future research will be discussed in the following section. In addition, the strengths and weaknesses of this scoping review will be examined.

It is clear from the literature that there are barriers to registration for IENs coming to Canada or to other destination countries. This scoping review clearly identified key areas such as lack of information, lack of necessary language skills, lack of understanding of the complexities of migration, as well as in some cases insufficient documentation of education and nursing practice. However, strategies were identified in the literature either explicitly or implicitly in order to overcome these barriers.

A common barrier identified in the literature was that IENs found the immigration and registration process difficult, confusing, and unpredictable. IENs described that sources of information from the Internet did not always use language that was easy to understand, and they often had problems getting consistent answers from officials (Jeans, 2006; Jeans et al., 2005; Newton et al., 2012). To lessen frustration among IENs, these issues need to be dealt with through more communication and greater clarity regarding the complex immigration and licensing process. Pre-arrival programs, such as the PASS program, was a significant strategy noted in the literature as it has allowed IEN applicants to attain the necessary information before reaching their destination country (Jaimet, 2016). IEN applicants in all countries

could benefit from this kind of program as many applicants identified having difficulty finding accurate information about the process for re-establishing their nursing careers in the destination country (Baumann et al., 2006; Higginbottom, 2011). An important recommendation from the literature is to improve and update main government websites specific to IENs in order to include clear, practical information on the elements of the registration process that can be completed before migrating (Kolawole, 2009).

Obtaining the required documents is an additional barrier that IENs face in their pursuit of professional recertification. As discussed, IENs do not always bring the necessary documents with them prior to leaving their home country, because they do not know the requirements for obtaining nursing registration in the destination country (Kolawole, 2009). Additionally, an obstacle that exists especially for refugee IENs coming from war torn areas is the inability to gather sufficient documentation (Leblanc et al., 2013). The literature suggested that IENs should be made aware of the possibility of a statutory declaration as this would prevent many IEN applicants from abandoning their applications because they are unable to obtain their documents (Baumann et al., 2006; Blythe et al., 2009).

Language skills is often an area that is seen as very important in healthcare and language requirements were identified as a major barrier for IENs in their pursuit for licensure. Not only can IENs' language proficiency affect their ability to complete educational courses, but it can also make it difficult for them to pass the registration exam, do well in the work environment and practice nursing safely. There is much discussion in the literature about the most appropriate tests for assessing IENs'

language skills. These language tests are not only expensive, but often delayed the registration process. The price, accessibility of the test and whether the test is recognised by nursing regulators are the main factors taken into consideration by IENs when deciding which language test to choose (Baumann et al., 2006). The two main English language tests discussed in the literature were the IELTS and the CELBAN. The literature revealed that the existing IELTS testing was a major source of frustration and difficulty for many IEN applicants, especially meeting the high language test scores and having to rewrite tests multiple times before they successfully passed. For IENs coming to Canada, the advantages of the CELBAN include that it is a Canadian language test created specifically for nurses. Additionally, with the CELBAN now being offered online, it is more easily accessible to IENs and allows them to take the test in their home countries before migrating (The CELBAN Centre, 2020a). Furthermore, a strategy that IENs used to improve their language skills was obtaining employment as personal support workers or health care aides (Allan & Westwood, 2016a).

High costs and financial difficulties were the most commonly identified barriers to obtaining nursing registration for IENs. It is evident in the literature that in addition to relocating costs, there are many other expenses that IENs are required to pay for including language test and credential assessment fees, bridging programs, the licensure exam and registration fees. For IENs working in lower paying positions or for those who are unemployed, these costs are especially significant. While some financial assistance is available for IENs through government funding, it is usually specific to educational expenses and does not help them with day-to-day costs such as transportation or daycare

fees (Covell et al., 2016). One strategy noted in the literature to mitigate costs is for IENs to complete as many of the registration requirements while they are still living and working in their home country. This would significantly reduce the time spent unable to practice as a nurse in the destination country and lessen their financial difficulties.

Bridging programs were identified as a main strategy in the literature for supporting IENs in gaining the competencies they need to practice in a new country. While there are costs associated to these bridging programs, they often facilitate a more rapid transition to the regulated status that is required for nursing within the profession. Key recommendations in the literature included the need for more bridging programs to be established outside of major cities, so IENs do not have to travel far distances to participate in them (Kolawole, 2009; Neiterman & Bourgeault, 2013). Partnership and flexibility is required among educational institutions in order to allow IENs to transfer credits between institutions (Baumann et al., 2006; Kolawole, 2009). Additionally, regulatory bodies, employers and educators should work together to create standard bridging programs for IENs and can use a guiding framework such as the CASN Pan-Canadian Framework of Guiding Principles and Essential Components for IEN Bridging Programs (CASN, 2012; Neiterman & Bourgeault, 2013). Recommendations from the literature for best practices for the curricula of bridging programs should also be included, such as ensuring orientation to the destination country’s healthcare system, content on nursing practice standards, as well as a clinical placement component (Atack et al., 2012; Singh & Sochan, 2010; Sochan & Singh, 2007).

The government of Canada, like other destination countries, has provided millions of dollars to facilitate the integration of IENs and other internationally educated health professionals through a variety of initiatives (Baumann et al., 2006; Health Canada, 2009). One initiative discussed in the literature was the IEHPI, which was funded to improve credential assessment for internationally educated health professionals, provide profession specific language training, exam preparation, mentorship programs and increased access to bridging programs (Health Canada, 2018). Another initiative was PLAR, which has helped make the credential verification and competence assessment process more equitable for IENs (Ogilvie et al., 2007). Jeans and colleagues (2005) also described the ELT initiative, which offers immigrants language training specific to their profession to help them successfully integrate into the workforce.

The required pass in the nursing licensure exam is a barrier for many IENs due to issues of language, exam anxiety, and the overall cost of writing the exam. IENs needed more time to understand the questions on the nursing exam and required extra time to complete the exam when English was not their primary language (Jeans et al., 2005; Newton et al., 2012). Another challenge identified in the literature was that experienced IENs tend to over think questions on the exam, especially when they had many years of nursing experience from their home country (Newton et al., 2012). The literature recommends enrolling in bridging programs when possible and developing study groups in order to help prepare for the registration exam (Covell et al., 2017).

It was evident in the literature that IENs who enter Canada as live-in caregivers face their own set of challenges, including having difficulty passing the licensure exam

due to extended time away from clinical practice (Salami et al., 2014). Live-in caregivers had the added challenge of only being able to study for the exam on weekends, as they are required to work long hours throughout the week (Hawkins & Rodney, 2015; Salami et al., 2014).

An important recommendation in the literature is to keep track of IENs as they move through the nursing licensure process (Baumann et al., 2006). Jeans and colleagues (2005) also recommended that all nurses including IENs, be given a “national unique identifier” (p.52). It was evident in the literature that data on IENs is incomplete and that the number of IENs currently living in Canada is unknown (Baumann et al., 2006). IENs registered with a regulatory body (i.e., the CNO) can be accounted for. However, since many IENs are not able to successfully recertify, the actual number of IENs is likely much larger (Baumann et al., 2006; Covell et al., 2015). If IENs were given an identifier, data could be collected as they move through the registration process and data on their transition into the workplace could be gathered as well.

Five important gaps in the literature were noted in this scoping review. The literature cites various push and pull factors that motivate IENs to make the decision to migrate. However, one of the gaps is that out of the many factors identified, the most influential push and pull factors are not yet known (Covell et al., 2016).

The literature recommends that IENs have their credentials verified, work on improving their language proficiency and take the licensing exam before migrating.

However, it is evident that IENs do not always complete these steps and further research is needed to understand why (Jeans, 2006; Singh & Sochan, 2010).

Another gap in the literature is that there is not much discussion about the advantages of IENs speaking and understanding different languages or coming from various cultural backgrounds, and the positive impact they can have on patient experiences (Covell et al., 2016). Especially in a multicultural country like Canada, IENs' fluency in another language can help patients and their families better understand their care plan and can help translate patients' needs to other members of the healthcare team (Covell et al., 2016).

A gap in the literature is that there are not many studies evaluating whether the various initiatives (for example, IEHPI, PLAR, ELT initiative) are effective and useful for IENs (Covell et al., 2016). More data and future research is needed regarding whether the programs and initiatives meet the specific needs of IENs and help them become registered as nurses (Covell et al., 2016).

Finally, Cheng and colleagues (2013) suggested that an area for future research might be whether there is a difference in the barriers to professional recertification that female and male IENs experience. Additionally, they recommend that further research is needed on whether there are any differences between the genders when it comes to the resources and supports they use to overcome obstacles in the process of obtaining nursing registration (Cheng et al., 2013).



### **Review Strengths**

A key strength of this scoping review is the use of the framework outlined by Arksey and O’Malley. The search strategy was comprehensive and was created in consultation with the university librarian who is experienced in scoping review methodology. A variety of databases covering a range of disciplines were carefully chosen in discussion with the librarian, to ensure that relevant articles that answer the research question were not missed. Grey literature was located by thoroughly searching websites of nursing regulatory bodies, nursing associations, government websites and immigrant organization websites. Additionally, the reference lists of articles were hand searched to find any other relevant papers that may have been missed. A systematic and consistent approach was applied during the study selection and data extraction stages. Selected articles were reviewed by the primary author and a second reviewer as recommended by Arksey and O’Malley. Citations were loaded onto the Rayyan software in order to test reviewer reliability. In addition, each article was carefully reviewed at least two times during the data extraction stage.

### **Review Limitations**

This scoping review has some limitations. One limitation was that the search results were limited to English language articles and those published after 2005. These limits may have omitted some relevant articles. The limits were put in place to allow for more current articles and a more manageable number of results. The rationale for limiting the publication date was also because 2005 was the year the legislation changed and required all Ontario RNs to have a bachelor’s degree or a 2-year diploma in order to

practice as an RPN. Secondly, even though this review employed a thorough search strategy, there is a possibility that some relevant grey or academic literature was not captured. Lastly, while a scoping review includes a broad range of research and non-research articles, it does not involve critical appraisal of the quality of literature that is included, which may have had an effect on the analysis section and the recommendations provided.

## **Chapter 6: Conclusion**

While some IENs are able to successfully navigate the process for obtaining nursing licensure, it is clear that many IENs face obstacles at every step of the process and some never become registered as nurses. IENs identified many barriers to registration, including a lack of accurate and important information prior to migrating, specifically information about the process for re-establishing their careers in the destination country. Additional barriers included difficulties in obtaining required documents and the challenge of meeting high language test scores. High costs were the most frequently identified barrier to obtaining nursing licensure for IENs. It has become necessary for many IENs to upgrade their education and take additional courses in order to qualify to write the nursing registration exam. Many IENs found passing the registration exam difficult due to over thinking questions on the exam and being unfamiliar with the nursing culture in the destination country. Bridging programs and initiatives such as PLAR and the IEHPI were identified as key strategies in helping IENs obtain nursing licensure. Additional data and future research is required in particular, about whether the various bridging programs and initiatives meet the needs of IENs and help them become registered as nurses.

In summary, this scoping review strengthens the existing evidence as the findings have identified and mapped key themes in the literature on the barriers and strategies to timely nursing registration for IENs. The results and key strategies from this review will inform policy makers, researchers, employers, licensing bodies, educators, as well as IENs and future researchers, The findings of this review add to an

evidence base which is essential for eliminating barriers to entering the nursing workforce and for implementing strategies that minimize the loss in human capital and better prepare IENs for practicing nursing in a new country. Furthermore, findings from this scoping review have significant implications for nurse staffing and policies and practices to improve the strength, stability, and diversity of the nursing workforce.

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## Appendix A

### Definitions of Key Terms

**Bridging:** Upgrading programs where nurses who are diploma-prepared take courses that qualify them to take the licensing exam or enter a program that leads to a degree in nursing (Baumann et al., 2006).

**Internationally Educated Nurses (IENs):** Nurses who have immigrated to Canada, but who obtained their nursing education from a nursing program in another country (CIHI, 2010; Covell, Neiterman, & Bourgeault, 2014b).

**Licensure:** The legislated process where a nurse is given the authorization to practice in their profession (CNA, 2015). In Canada, there is no national licensure process, instead each province has a regulatory body and registration process in place (CNA, 2015).

**Nursing Regulatory Body:** A professional college or association in each province and territory in Canada, that establishes the criteria for registration and licensure for nurses and “determines whether applicants or members are eligible to practice” (CNA, 2015, p. 9).

**Registered Nurse (RN):** “Self-regulated health-care professionals who work autonomously and in collaboration with others to enable individuals, families, groups, communities and populations to achieve their optimal levels of health” (Canadian Nurses Association [CNA], 2015, p.5). RNs are one of the three regulated nursing groups in Canada.

**Registered Practical Nurse (RPN) or Licensed Practical Nurse (LPN):** Health-care professionals that work independently and together with other health care providers. RPNs and RNs differ in their nursing education, with RNs studying for a longer time than RPNs, as well as differences in practice (CIHI, 2018; Registered Practical Nurses Association of Ontario [RPNAO], 2013). RPNs are also one of the three regulated nursing groups in Canada.

**Appendix B**

Search Strategies for Electronic Databases

**a) Ovid Interface Search** (Embase, MEDLINE, HealthSTAR and PsycINFO databases were searched using the Ovid interface)

| <b>Entry #</b> | <b>Search Term</b>                                                                              |
|----------------|-------------------------------------------------------------------------------------------------|
| 1              | Nurses, International/                                                                          |
| 2              | international nurse*.ti,ab.                                                                     |
| 3              | internationally educated nurse*.ti,ab.                                                          |
| 4              | internationally trained nurse*.ti,ab.                                                           |
| 5              | foreign trained nurse*.ti,ab.                                                                   |
| 6              | foreign educated nurse*.ti,ab.                                                                  |
| 7              | or/1-6                                                                                          |
| 8              | registration.ti,ab.                                                                             |
| 9              | credentialing/ or certification/ or licensure/ or licensure, nursing/ or government regulation/ |
| 10             | credential*.ti,ab.                                                                              |
| 11             | licensure.ti,ab.                                                                                |
| 12             | regulation*.ti,ab.                                                                              |
| 13             | or/8-12                                                                                         |
| 14             | 7 and 13                                                                                        |
| 15             | limit 14 to (english language and yr="2005-2019")                                               |

**b) CINAHL Search**

| <b>Entry #</b> | <b>Search Term</b>                                                                                                  |
|----------------|---------------------------------------------------------------------------------------------------------------------|
| 1              | (MH "Foreign Nurses")                                                                                               |
| 2              | "international nurse"                                                                                               |
| 3              | "international nurses"                                                                                              |
| 4              | "internationally educated nurse"                                                                                    |
| 5              | "internationally educated nurses"                                                                                   |
| 6              | "internationally trained nurse"                                                                                     |
| 7              | "internationally trained nurses"                                                                                    |
| 8              | "foreign-trained nurse"                                                                                             |
| 9              | "foreign-trained nurses"                                                                                            |
| 10             | "foreign educated nurse"                                                                                            |
| 11             | "foreign educated nurses"                                                                                           |
| 12             | S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11                                                    |
| 13             | (MH "Registration")                                                                                                 |
| 14             | "registration"                                                                                                      |
| 15             | (MH "Credentialing")                                                                                                |
| 16             | "credential"                                                                                                        |
| 17             | "credentials"                                                                                                       |
| 18             | "credentialing"                                                                                                     |
| 19             | (MH "Licensure")                                                                                                    |
| 20             | (MH "Licensure, Nursing")                                                                                           |
| 21             | "licensure"                                                                                                         |
| 22             | (MH "Professional Regulation")                                                                                      |
| 23             | "regulation"                                                                                                        |
| 24             | (MH "Government Regulations")                                                                                       |
| 25             | "government regulation"                                                                                             |
| 26             | "government regulations"                                                                                            |
| 27             | (MH "Certification")                                                                                                |
| 28             | "certification"                                                                                                     |
| 29             | "certification in nursing"                                                                                          |
| 30             | S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 |
| 31             | S12 AND S30<br>Limiters - Published Date: 20050101-20191231; English Language                                       |



**c) Sociological Abstracts Search**

| <b>Entry #</b> | <b>Search Term</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1              | noft(foreign nurses)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 2              | noft(international nurse)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 3              | noft(internationally educated nurse)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4              | noft(international educated nurses)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5              | noft(internationally trained nurses)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 6              | noft(foreign trained nurse)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 7              | noft(foreign educated nurse)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 8              | noft(registration)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 9              | MAINSUBJECT.EXACT("registration")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 10             | noft(credentialing)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 11             | noft(credential)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 12             | MAINSUBJECT.EXACT("certification")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 13             | noft(licensure)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 14             | noft(nursing licensure)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 15             | noft(regulation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 16             | MAINSUBJECT.EXACT("regulation")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 17             | noft(professional regulation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 18             | noft(government regulation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 19             | MAINSUBJECT.EXACT("government regulation")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 20             | noft(certification)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 21             | noft(certification in nursing)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 22             | (noft(foreign nurses) OR noft(international nurse) OR noft(internationally educated nurse) OR noft(international educated nurses) OR noft(internationally trained nurses) OR noft(foreign trained nurse) OR noft(foreign educated nurse)) AND (noft(registration) OR MAINSUBJECT.EXACT("registration") OR noft(credentialing) OR noft(credential) OR MAINSUBJECT.EXACT("certification") OR noft(licensure) OR noft(nursing licensure) OR noft(regulation) OR MAINSUBJECT.EXACT("regulation") OR noft(professional regulation) OR noft(government regulation) OR MAINSUBJECT.EXACT("government regulation") OR noft(certification) OR noft(certification in nursing))<br><i>Applied filters: 2005-2019; English</i> |

**d) Web of Science Search**

| <b>Entry #</b> | <b>Search Term</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1              | TS=(foreign nurses)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2              | TS=(international nurse)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 3              | TS=(internationally educated nurse)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4              | TS=(international educated nurses)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5              | TS=(internationally trained nurses)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6              | TS=(foreign trained nurse)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7              | TS=(foreign educated nurse)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 8              | TS=(registration)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 9              | TS=(credentialing)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 10             | TS=(credential)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 11             | TS=(licensure)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 12             | TS=(nursing licensure)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 13             | TS=(regulation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 14             | TS=(professional regulation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 15             | TS=(government regulation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 16             | TS=(certification)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 17             | TS=(certification in nursing)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 18             | (TS=(foreign nurses) OR TS=(international nurse) OR TS=(internationally educated nurse) OR TS=(international educated nurses) OR TS=(internationally trained nurses) OR TS=(foreign trained nurse) OR TS=(foreign educated nurse)) AND (TS=(registration) OR TS=(credentialing) OR TS=(credential) OR TS=(licensure) OR TS=(nursing licensure) OR TS=(regulation) OR TS=(professional regulation) OR TS=(government regulation) OR TS=(certification) OR TS=(certification in nursing))<br><i>Applied filters: 2005-2019; English</i> |

**Appendix C**

Condensed Data Charting Form

| <b>Authors (Year)</b>              | <b>Study type &amp; Location</b>          | <b>Purpose of Article</b>                                                                                                                                                                                                                            | <b>Key Themes &amp; Findings</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| Allan & Westwood (2016a)           | Editorial<br>United Kingdom               | To highlight the need to provide adequate English language skills training in order to avoid under-usage of internationally qualified nurses and prevent the disadvantaging of nurses who are not from the European Union and European Economic Area | <ul style="list-style-type: none"> <li>- Many IENs working as unqualified healthcare assistants and constrained by the need to pass the English language skills testing required for nurse registration</li> <li>- Provide IENs currently working as healthcare assistants, who want to register as qualified nurses with supplementary language skills and cultural competency training to meet the language requirements for registration/transfer courses</li> </ul>                                       |
| Allan & Westwood (2016b)           | Qualitative descriptive<br>United Kingdom | To identify perceived barriers to UK nurse registration, as experienced by internationally educated nurses working as healthcare assistants in the UK                                                                                                | <ul style="list-style-type: none"> <li>- IELTS, not English language skills per se, viewed as major barrier to UK registration. Participants frustrated due to repeated unsuccessful attempts at passing the IELTS exam and feel IELTS requirements are too high. Without a passing IELTS score they are ineligible for conversion courses</li> <li>- NHS employers should provide English language support for IENs practicing as healthcare assistants who are struggling to pass the IELTS exam</li> </ul> |
| Atack, Cruz, Maher & Murphy (2012) | Qualitative descriptive<br>Canada         | To explore nurses’ experiences with the new integrated bridge program and determine its effectiveness as graduates applied for licensure and made the transition to the workplace                                                                    | <ul style="list-style-type: none"> <li>- Bridge programs are essential to ensure that IENs are prepared for practice in their adopted country</li> <li>- Occupation specific language training, emphasis on the culture of nursing and healthcare and ample clinical practice time are essential components of an effective bridge program, and are necessary for obtaining licensure and securing employment</li> </ul>                                                                                      |

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|                                           |                                   |                                                                                                                                                                                                                        | -Recommendations for bridge programs: Place more focus on gerontology, dementia, and Alzheimer’s disease. Do not increase program length because that will increase cost.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Baumann, Blythe, Rheume, McIntosh (2006)  | Report<br>Canada                  | To provide an overview of the history and characteristics of nurse migration in Canada and to inform policy makers about barriers and facilitators to IENs becoming licensed and practicing their profession in Canada | <ul style="list-style-type: none"> <li>- Key Recommendations: Ensure IENs are provided with appropriate information on licensing and the labour market during the immigration process and before they enter Canada</li> <li>- Encourage completion of elements of the licensing process that can be done in advance of emigration</li> <li>- Create a funding envelope to provide permanent funding for upgrading/bridging programs</li> <li>- Initiate collaboration among educational programs for IENs to facilitate transfer of credits from one institution to another</li> <li>- Track IEN applicants throughout the licensing process</li> </ul> |
| Blythe & Baumann (2009)                   | Article<br>Canada                 | To provide a profile of nurses educated in different countries who are employed in a major settlement jurisdiction                                                                                                     | <ul style="list-style-type: none"> <li>- Most nurses come to Canada as landed immigrants and not recruits, so the number of IENs resident in Canada is unknown</li> <li>- It may take several months or years for an IEN to become eligible to take the registration exam. Some IENs never return to nursing because of lifestyle choices and the investment needed to complete registration</li> </ul>                                                                                                                                                                                                                                                 |
| Blythe, Baumann, Rheume & McIntosh (2009) | Qualitative descriptive<br>Canada | To discover how the migration process, regulatory procedures, issues with the national licensing examinations, and finding employment influence workforce uptake                                                       | <ul style="list-style-type: none"> <li>- IENs who enter through the Live-In Caregiver Program cannot apply to register until they complete their contracts and obtain permanent resident status. The long absence from practice leads some to abandon nursing</li> <li>- Some IENs abandon their application because they cannot retrieve their credentials</li> <li>- Changes in entry to practice require most IENs to take upgrading courses. This may have caused more IENs with families/financial constraints to drop out</li> </ul>                                                                                                              |
| Cheng, Spaling & Song (2013)              | Qualitative descriptive           | To understand the complex barriers and facilitators of professional certification in                                                                                                                                   | <ul style="list-style-type: none"> <li>- Found that IEPs do not struggle with certification tests, but experience great difficulty in successfully navigating the application process that leads to being eligible for testing</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                               |

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|                                                | Canada                                | relation to testing as identified by IEPs. To improve professional certification processes for IEPs in Ontario                                                                                                                                                  | <ul style="list-style-type: none"> <li>- IEPs described the certification process as “unclear” and “difficult”. Many IEPs did not know where to access information, how to initiate the application process or expressed loss of confidence in the system</li> <li>- Financial strain and high financial costs were identified as a barrier to certification by all IEPs</li> </ul>                                                                                                                                                                                                      |
| Coffey (2006)                                  | Article<br>Canada                     | A curricular innovation was designed to provide IENs with access to nursing licensure and employment. The program includes professionally relevant English language support, mentorship, academic upgrading, workplace experiences, and clinical skills support | <ul style="list-style-type: none"> <li>- This strategy includes IENs taking a qualifying pre-session and a modified BScN program which leads to earning a BScN degree in 20 months of full-time study</li> <li>- Qualifying pre-session includes professionally relevant English language instruction, informal and formal mentorship, a clinical practicum in an acute care setting</li> <li>- Students commented that the program was the turning point in their lives and that these types of bridging programs are essential</li> </ul>                                              |
| Covell, Neiterman & Bourgeault (2016)          | Literature Review<br>Canada           | To outline main themes in the literature on the professional integration of internationally educated health professionals (IEHPs) in Canada. To summarize the amount, types, sources and distribution and identify important themes in the literature           | <ul style="list-style-type: none"> <li>- One of the greatest barriers to professional recertification in the literature was financial barriers. Resettlement costs and fees required to have credentials assessed can be significant. Many IEHPs are forced into non-professional jobs, which then makes it more difficult to re-enter their profession</li> <li>- Another common barrier identified was lack of knowledge of how to navigate social and professional resources</li> <li>- Bridging programs were identified as a facilitator to professional recertification</li> </ul> |
| Covell, Primeau, Kilpatrick & St-Pierre (2017) | Quantitative, observational<br>Canada | To describe the demographic and human capital profile of IENs in Canada, to explore recent changes to the profile, and to identify predictors of IENs’ workforce integration                                                                                    | <ul style="list-style-type: none"> <li>- Facilitators of professional recertification: IENs reported reading exam review books, perfecting their language skills, acquiring mentorship or tutoring from friends/colleagues in Canada and participating in IEN bridging programs which helped them pass the licensing exam and secure employment</li> <li>- Professional experience (3-5 years) and help studying significantly predicted if IENs passed the licensure exam on their first attempt</li> </ul>                                                                             |

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| Covell, Primeau & St-Pierre (2018) | Quantitative, observational<br><br>Canada | To examine internationally educated nurses’ perceptions of the extent to which participating in bridging programmes is beneficial for preparing to practice nursing in Canada                                    | <ul style="list-style-type: none"> <li>- Overall IENs’ perceived their participation in bridging programmes helped them address gaps in their cultural, practical and theoretical knowledge.</li> <li>- Bridging program participation allowed IENs to develop occupational-specific vocabulary and become familiar with the nursing profession &amp; healthcare system in the destination country</li> <li>- IENs with less experience rated their participation more highly beneficial than IENs with more years of experience</li> </ul>                                              |
| Eriksson, Berg & Engstrom (2018)   | Qualitative descriptive<br><br>Sweden     | To describe IENs’ and IMGs’ experiences of getting a license to practice and work in the Swedish health and social care system. To evaluate their ability to use their intercultural competence at work          | <ul style="list-style-type: none"> <li>- It took some IENs almost four years to obtain their licence. This included the time it takes to complete their supplementary training and language courses</li> <li>- Some IENs had difficulty getting information about how to apply for a nursing licence</li> <li>- Some IENs came from conflict areas and could not travel back to get the certificates needed for the nursing application</li> <li>- Lack of language skills was described as the main problem for both IENs and IMGs</li> </ul>                                           |
| Grymonpre et al. (2017)            | Article<br><br>Canada                     | To outline the complex licensure pathways for seven healthcare professions and confirm “collaboration” is a required competency, further validating the need for the online interprofessional competency toolkit | <ul style="list-style-type: none"> <li>- The Interprofessional Competency (Practice) Toolkit for IEHPs (ICT for IEHPs) was created to facilitate the entry of IEHPs into the Canadian health workforce</li> <li>- ICT for IEHPs was designed as a competency-based toolkit informed by CIHC National Competency Framework to align with the education at Canadian post-secondary institutions</li> <li>- “Collaboration” is a required component of the licensing exam for all seven health professions confirming the need for and relevance of a standardized ICT for IEHPs</li> </ul> |
| Hawkins & Rodney (2015)            | Qualitative ethnography<br><br>Canada     | To learn from IENs educated in the Philippines about their subjective experiences seeking Canadian RN licensure and to critically examine structures and processes that intersect at                             | <ul style="list-style-type: none"> <li>- IENs under the Live-in Caregiver Program had to fulfill their caregiver contract prior to taking steps leading to RN licensure, which delayed the process.</li> <li>- One licensure hurdle was meeting the regulatory body’s English language proficiency requirement and the expenses associated with English review classes and proficiency tests.</li> </ul>                                                                                                                                                                                 |

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|                     |                                       | international, national, and local levels and pose challenges for them                                                                                                                                                                                                  | - For many IENs a nurse re-entry program was not feasible due to financial pressures, as well as family responsibilities and lengthy waitlists                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Higginbottom (2011) | Qualitative ethnography<br><br>Canada | To gain an understanding of the transitioning experiences of IENs upon relocation to Canada, with the additional goal of creating some national and/or provincial policy and practice recommendations for improving the quality of their transition and their retention | - Many IENs were not informed during recruitment of the different stages and qualifying procedures the provincial regulatory body required before one is able to take the registration exam. Recruitment agencies were failing to provide accurate and relevant information<br>- Participants relied upon family members to help supply documents required for their credentialing                                                                                                                                                                                                                             |
| Jaimet (2016)       | Article<br><br>Canada                 | To describe the new mentorship component for IENs that is part of a program called PASS (Pre-Arrival Supports and Services), which is funded by Immigration, Refugees and Citizenship Canada                                                                            | - The strategy outlined allows Canadian RNs and retired nurses to volunteer as a mentor in a program where they are matched with IENs who are preparing to move to Canada<br>- The purpose is to inform IENs about the process of obtaining licensure, give them access to webinars about being a nurse in Canada, the Canadian health care system and to provide them with one-on-one interaction with Canadian nurses<br>- The mentor is expected to communicate with the mentee 3 to 5 times pre-arrival and at least once post-arrival. Some mentors are IENs themselves                                   |
| Jeans (2006)        | Article<br><br>Canada                 | To discuss a recent federally funded study yielding important information regarding gaps in regulation, screening, assessment, and registration of IENs                                                                                                                 | - Lack of accurate and helpful information is a serious problem. The sources that do exist are written in language that is inappropriate and complicated, especially for people not fluent in English/French<br>- A main reason for not completing the assessment process was not being able to obtain documents. For applicants already in Canada, trying to obtain the documentation is almost impossible<br>- Recommendations from the study: To get as much paperwork as possible before leaving their home countries; establish nationally standardized bridging programs to meet the needs of IENs, etc. |

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| <p>Jeans, Hadley, Green, Da Prat (2005)</p> | <p>Report<br/>Canada</p>                        | <p>To document current policies, practices and procedures used by Canadian nursing regulatory bodies with respect to licensure/registration of international applicants and identify the challenges IENs encounter when integrating into the workforce</p> | <ul style="list-style-type: none"> <li>- Key recommendations: Establish a standard language test such as the Canadian English Language Benchmarks Assessment for Nurses (CELBAN)</li> <li>- Accelerate CELBAN’s recognition, implementation, and accessibility nationally and internationally</li> <li>- Establish nationally standardized flexible bridging programs to ensure IENs are competent to meet Canadian nursing standards. These programs should integrate language and communication courses to meet their learning needs</li> <li>- Assign a national unique identifier to all nurses, including IENs</li> </ul> |
| <p>Jenkins &amp; Huntington (2015)</p>      | <p>Literature Review<br/>Multiple Countries</p> | <p>To explore the literature regarding the context and experiences of internationally qualified RNs, particularly from India and the Philippines, who have transitioned to New Zealand</p>                                                                 | <ul style="list-style-type: none"> <li>- Migration and registration-related fees ranged anywhere from \$500 - \$25,000 for a single nurse. Non-English-speaking nurses identified that fees were mostly related to being required to take Competency Assessment Programmes and English language tests, visas, extra training, flights, accommodation and assistance in gaining employment</li> <li>- The IELTS exam was reported to be the most common and most difficult registration issue</li> </ul>                                                                                                                        |
| <p>Jenkins &amp; Huntington (2016)</p>      | <p>Qualitative descriptive<br/>New Zealand</p>  | <p>To explore the experiences of Filipino and Indian internationally qualified nurses (IQNs) who transitioned to New Zealand as RNs in aged care</p>                                                                                                       | <ul style="list-style-type: none"> <li>- Participants described frustration with the time taken for the Nursing Council to process registrations. Some participants waited for almost two years</li> <li>- Participants also described frustration related to registration decisions and they identified inconsistencies between their decisions</li> <li>- One participant found that part way through registration, the Nursing Council altered the eligibility criteria for nurses coming from India</li> </ul>                                                                                                             |
| <p>Kolawole (2009)</p>                      | <p>Article<br/>Canada</p>                       | <p>To analyse critically the waste in human capital of Ontario’s internationally educated nurses resulting from unemployment or underemployment</p>                                                                                                        | <ul style="list-style-type: none"> <li>- The absence of explicit publicly stated information on which processes can be completed pre-migration further lengthens the registration process</li> <li>- IENs who migrate through the live-in caregiver program cannot apply for licensure until they become permanent residents (PR)</li> </ul>                                                                                                                                                                                                                                                                                   |



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|                                                   |                                                                |                                                                                                                                                                                                                                            | <p>With the lengthy period it takes to become PR and to complete the registration process, many nurses may never be able to register</p> <ul style="list-style-type: none"> <li>- The Creating Access to Regulated Employment (CARE) nursing program is one strategy that helped increase the number of IENs who write the registration exam</li> </ul>                                                                                                                                                                                                                                                                        |
| <p>Kwan et al. (2019)</p>                         | <p>Mixed Methods<br/>Canada</p>                                | <p>To evaluate effectiveness of specific policy and practice changes to the process of registration for internationally educated nurses based on findings from a retrospective review of administrative data</p>                           | <ul style="list-style-type: none"> <li>- The time between steps in the process of registration was significantly reduced following implementation of the intervention. Stakeholders reported an increase in perceived efficiency, transparency and use of evidence</li> <li>- Another strategy that was part of the intervention included updating communication tools such as the website, to improve clarity and transparency. It was stated that it made it much easier now that the information was on the website and the steps that need to be taken are clearly outlined</li> </ul>                                     |
| <p>Leblanc, Bourgeault &amp; Neiterman (2013)</p> | <p>Qualitative descriptive<br/>Canada &amp; United Kingdom</p> | <p>To examine barriers to the integration of refugee nurses and doctors in Canada and the United Kingdom</p>                                                                                                                               | <ul style="list-style-type: none"> <li>- Language proficiency remains one of the most formidable barriers. Professionals often need to improve profession-specific language competency and even though refugee doctors and nurses may have completed their education in English, this may not make them proficient</li> <li>- Another main challenge for refugees is gaining recognition for foreign educational credentials and professional experience</li> <li>- Severe financial hardship is a key barrier to obtaining registration and to requalifying</li> </ul>                                                        |
| <p>Lebold &amp; Walsh (2006)</p>                  | <p>Article<br/>United States</p>                               | <p>To describe the efforts of the Chicago Bilingual Nurse Consortium (CBNC), a collaborative partnership developed to provide education, advocacy, and support services to IENs who have not yet met the requirements for RN licensure</p> | <ul style="list-style-type: none"> <li>- Challenges faced by IENs: difficulty obtaining transcripts from country of origin, competency in English, lacking computer skills, financial pressures and heavy family responsibilities</li> <li>- Linkages are created with other educational and community agencies to prepare candidates in English and computer literacy. Courses provided by community colleges tend to be free or offered at a minimal cost and have proven to be valuable for the IENs. Courses must be readily available, meet the IENs’ personal and family life schedule and be based near them</li> </ul> |

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| McGuire & Murphy (2005)             | Article<br>Canada                       | To describe that programs are needed to introduce IENs to the culture of nursing in Canada. Programs that incorporate language training, satisfy theory and practice deficiencies, and bridge to the baccalaureate entry to practice requirement | <ul style="list-style-type: none"> <li>- Many IENs face significant challenges and confusion upon entry into Canada when navigating information and requirements pertaining to becoming licensed</li> <li>- Cost of the licensure process for IENs in Alberta can be as high as \$3,000, covering English-language assessments, application fees, upgrading programs, licensure exams and registration fees</li> <li>- The longer the time lag between graduation and exam writing, the lower the rates of success reported on exams. Language factors and test-taking skills may contribute to difficulty in passing the licensure exam</li> </ul> |
| Mowat & Haar (2018)                 | Mixed Methods<br>New Zealand            | To examine the sacrifices, perceived benefits and surprises of internationally qualified nurses (IQNs) from the Philippines and India on their migration to New Zealand                                                                          | <ul style="list-style-type: none"> <li>- The biggest ‘sacrifice’ themes identified were borrowing money, with 36% of participants describing this as very difficult, 33% felt the time it took to get registration was the second significant sacrifice. Meeting IELTS requirements was described by 12% of IQNs as being extremely difficult</li> <li>- Language barriers and passing English competency programs seem to be what delays the registration process. More education on the language requirements should be enforced prior to migration</li> </ul>                                                                                    |
| Moyce, Lash & de Leon Siantz (2016) | Literature Review<br>Multiple Countries | To understand the lived migration and acculturation experiences of foreign educated nurses (FENs)                                                                                                                                                | <ul style="list-style-type: none"> <li>- Many FENs go through a recruitment agency, which offers some advice on the immigration process for a high price. FENs find that the information they are provided is insufficient and misleads them by telling them that finding a job will be easy</li> <li>- FENs report language as a barrier to passing licensing exams or completing the required additional courses</li> <li>- An important finding across studies is that FENs who participate in formal orientation programs or professional organizations tend to be more acculturated</li> </ul>                                                 |
| Neiterman & Bourgeault (2013)       | Qualitative descriptive                 | To examine the challenges that lack of cultural fit may pose to the integration of IENs into a                                                                                                                                                   | <ul style="list-style-type: none"> <li>- Majority of language proficiency tests do not assess for ability to work in health care. A general knowledge of English does not mean that an IEN is familiar with nursing terminology</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                          |

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|                                                           | Canada                                  | new health-care system and to explore the policy solutions aimed at preparing IENs to work in Canada                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>- Language posed a challenge when it came time to write the exam. Respondents found the cultural component of the exam to be more challenging than the clinical aspects</li> <li>- IENs found that the best way to learn about Canadian culture was to enrol in a bridging program. Canadian Association of Schools of Nursing created a Pan-Canadian Framework of Guiding Principles and Essential Components for IEN Bridging Programs. This project is intended to streamline bridging education</li> </ul>                                                                                                                                                        |
| Newton, Pillay & Higginbottom (2012)                      | Literature Review<br>Multiple Countries | To comprehensively review recent literature related to the migration and transitioning experiences of internationally educated nurses (IENs)                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>- Difficulties include failure to locate useful and appropriate information leading to credentialing assessment. Internet resources are often developed using a higher level of English than IENs’ level of comprehension</li> <li>- Challenges when writing the board exams can include: language and cultural biases, a longer length of time needed to complete the exam due to having English as an additional language and overanalysing questions because of prior nursing experience</li> </ul>                                                                                                                                                                |
| Ogilvie, Leung, Gushuliak, McGuire & Burgess-Pinto (2007) | Article<br>Canada                       | To describe current nurse licensure practices in Canada. Initiatives to remove barriers and facilitate success, tensions associated with IEN licensure in the Canadian context, and directions for practices, policies, and research that may enhance IEN integration into professional nursing roles in Canada are described | <ul style="list-style-type: none"> <li>- Professional aspirations may be put on hold as IENs meet family and cultural expectations to facilitate their spouses’ entry into the skilled workforce, settle children in school and assume paid employment as quickly as possible to contribute to family income</li> <li>- Costs associated with educational upgrading: The \$3,000 calculation for Alberta does not include lost income, childcare, or full costs of language upgrading, PLAR, and remedial programs</li> <li>- The lack of IEN-specific remedial programs posed barriers to licensure. The Alberta government funded a nurse credentialing for foreign qualified nurses initiative</li> </ul> |
| Parrone, Sredl, Miller, Phillips & Donaubaauer (2008)     | Article<br>United States                | To examine one school of nursing’s approach via establishment of multipronged teaching/learning strategy so                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>- Four groups of foreign nurses were evaluated using a learning strategy consisting of a 3-week review course, a HESI exam, and remedial training (when indicated). When the nurses attained a score of 85 or higher on the HESI exam, they were able to take the NCLEX. Students who scored lower than 85 were given</li> </ul>                                                                                                                                                                                                                                                                                                                                      |

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|                                        |                                         | that immigrated RN candidates might pass the NCLEX-RN                                                                                                                                                           | remediation of 36 hours of computerized review tests, individual counseling to explain the test results, etc.<br>- All 67 foreign nurses ultimately passed the NCLEX (within 2 attempts) and obtained RN licensure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Rumsey, Thiessen, Buchan & Daly (2016) | Qualitative case study<br><br>Australia | To discuss the perceptions about the International English Language Testing System (IELTS) and its impact on migration and practice of migrant health professionals in Australia                                | - Issues which emerged from the evidence: difficulties in achieving the English language standard at the level required; inappropriate focus on academic English language skills rather than general communication; limited validity (2 years) of English language test results for the purposes of registration<br>- Participants claimed that the IELTS requirement (of a minimum score of 7 in each of the four components) necessitated several sittings of the test. The need for concurrent level 7 scoring across the four components creating multiple testing is costly (Cost of the test in Australia in 2014 was \$330)                                                                                                                                          |
| Salami (2014)                          | Qualitative case study<br><br>Canada    | To examine the experiences of Philippine educated nurses who migrate to Ontario through the Live-in Caregiver Program as well as the views of stakeholders on the nursing workforce integration of these nurses | - Key Findings: Familial obligations (to gain citizenship for the family) influence the migration decision of nurses who migrate to Ontario through the Live-in Caregiver Program (LCP). The gaps between immigration policy and nursing policy complicate the workforce integration of this group of nurses<br>- While immigration policy makers emphasize the short-term goal of meeting labour market shortage of caregivers, live-in caregivers emphasize the long-term goal of workforce integration. Nursing policy in Ontario and Canada does not take into account the complexities in immigration policy. There is a need to bridge nursing and immigration policy gaps to maximize the integration and well-being of nurses who migrate to Canada through the LCP |
| Salami, Meherali & Covell (2017)       | Qualitative descriptive<br><br>Canada   | To explore the experience of baccalaureate prepared IENS who work as licensed practical nurses (LPNs) in Canada                                                                                                 | - Participants discussed the lack of adequate knowledge about the RN registration process in Canada. Those recruited to Canada were only informed by recruiters about the LPN registration process and not about the RN<br>- Another factor that leads to downward occupational mobility, is the much easier and faster LPN licensing process                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|                                                            |                                      |                                                                                                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>- Some abandon their application because their documentation didn’t arrive on time and their application time expired, and they have to start the whole process from the beginning</li> <li>- Most IENs stated that getting the required score in the language test was the most challenging step in the application process</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                          |
| Salami, Nelson, McGillis Hall, Muntaner & Hawthorne (2014) | Qualitative case study<br><br>Canada | To provide an in-depth perspective on the specific barriers to workforce integration faced by internationally educated nurses who migrate to Canada through the Live-in Caregiver Program                                                                                                                                                                | <ul style="list-style-type: none"> <li>- Due to a policy change, new nurse registrants in Ontario are required to demonstrate safe nursing practice within the last 3 years. It takes them 2-4 years to complete the requirements of the Live-in Caregiver program and 3-7 years to become a permanent resident</li> <li>- They also experience difficulty in completing bridging programs because they often work 12 hours a day, 5 days a week</li> <li>- High financial costs can amount to approx. \$1,800 which is a key barrier to completing registration. Those working as live-in caregivers are charged international student fees (approx. \$11,000 - \$15,000 per year) which exceeds their yearly income</li> </ul>                                                        |
| Singh & Sochan (2010)                                      | Qualitative other<br><br>Canada      | To present policy recommendations based on their earlier study describing the experiences of IENs in their journey to become RNs in Ontario. They focus on how credentialing processes can be made transparent, standardized, and harmonized between international professional regulatory bodies and their national immigration processing institutions | <ul style="list-style-type: none"> <li>- IENs spoke of inconsistencies in approving their qualifications. They could not appreciate how credentials from the same foreign nursing programs were deemed acceptable for some evaluators yet rejected by others</li> <li>- Many expressed irony when describing their dilemma and the apparent nursing shortages reported in the media</li> <li>- IENs spoke about the time consuming and expensive nature of verifying their qualifications a way from their home country</li> <li>- Elements of the licensing process that can be done before migrating: getting nursing education evaluated for equivalency, writing the recipient country’s licensing exam, providing evidence of fluency in the required official language</li> </ul> |
| Sochan & Singh (2007)                                      | Qualitative other<br><br>Canada      | To uncover, in part, the issues related to professional nursing credentialing                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>- The IENs shared that the credentialing process was inefficient, time consuming and expensive. One IEN was frustrated that her requirements for registration were not recognized across Canada,</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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|                |                          |                                                                                                                                   | <p>as she had already been licensed in the province of British Columbia</p> <ul style="list-style-type: none"> <li>- Another trial for these IENs was the number of courses they needed for bridging kept changing, as well as the amount of clinical hours</li> <li>- Being a caregiver (IENs part of live-in caregiver program) allowed them to obtain permanent residency. However, it did not allow them to maintain their nursing skills. This interruption in practice resulted in their deskilling of home-country nursing knowledge and expertise</li> </ul>                                                                                                                                                                                         |
| Xu & He (2012) | Article<br>United States | To examine what the United States can learn from other countries (United Kingdom, Australia, Canada) regarding transitioning IENs | <ul style="list-style-type: none"> <li>- The Overseas Nurses Program (ONP) has two integrated parts: academic study and supervised practice. Academic study is 20 days of protected learning at an NMC approved higher education institution intended to provide opportunities for IENs to gain a better understanding of UK culture and health care services to achieve the competencies required for registration</li> <li>- NAP is designed to orient IENs to the Australian healthcare system. It ensures there is some consistency, validity, and reliability</li> <li>- Pre-registration/licensure, pre-hire programs: Emphasis on assisting IENs in filling gaps in education, language, and experiences to meet registration requirements</li> </ul> |