A Scoping Review of the Literature on Internationally Educated Nurses in Canada: Mapping a Research Agenda

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The purpose of this scoping review was to map key themes in the Canadian literature on the professional integration of internationally educated nurses (IENs), identify the types and sources of and gaps in evidence, and offer recommendations for research. The work was guided by a 6-step methodological framework for scoping reviews. The search and selection of academic and grey literature for the period 2000–13 resulted in a sample of 157 papers for full-text screening. Themes derived from the literature reflect stages of IENs' professional integration: pre-immigration and early arrival, professional recertification, workforce integration, and workplace integration. Data were extracted, coded, and collated using electronic charts. Numerical and qualitative thematic summaries were used to analyze the data. Recommendations for research are as follows: create data systems to track IEN immigration and integration; determine the effectiveness of programs and policies for IENs; and examine the influence of language proficiency on professional recertification, workplace integration, and patient safety.

Keywords: human resources, internationally educated nurses, integration, recertification, scoping review, Canada

Résumé

Une analyse exhaustive de la littérature canadienne portant sur le personnel infirmier formé à l'étranger : recensement des thèmes clés traités dans la recherche

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La présente analyse exhaustive a pour objectif de recenser les thèmes clés traités dans la documentation canadienne portant sur l'intégration professionnelle du personnel infirmier formé à l'étranger (PIFÉ), de déterminer les types et les sources des données probantes ainsi que les lacunes, et d'émettre des recommandations en matière de recherche. Dans le cadre de cette analyse, les auteures ont utilisé un cadre méthodologique comportant six étapes. Le recensement et la sélection d'une littérature didactique et d'une documentation parallèle couvrant la période de 2000 et 2013 a mené à un examen des textes intégraux de 157 documents de recherche. Les thèmes extraits de la littérature reflètent les étapes de l'intégration professionnelle des PIFÉ : la pré-immigration et l'arrivée au Canada; le recertification professionnelle; l'intégration au marché du travail; et l'intégration au travail. Des données ont été extraites, codées et rassemblées en utilisant des tableaux électroniques. Des résumés thématiques numériques et qualitatifs ont été utilisés pour analyser les données. Les recommandations en matière de recherche sont les suivantes : créer des systèmes de données pour suivre la démarche d'immigration et d'intégration du PIFÉ; déterminer l'efficacité des programmes et des politiques à l'intention des PIFÉ; et examiner l'influence de la maîtrise de la langue sur la recertification professionnelle, l'intégration au travail et la sécurité des patients.

Mots clés : personnel infirmier formé à l'étranger, intégration, maîtrise de la langue, recertification, analyse exhaustive, Canada

Despite reports of a growth in the supply of Canadian nurses (Canadian Nurses Association [CNA], 2013), forecasters estimate that by 2022 an additional 60,000 nurses will be required to meet the demand (Tomblin-Murphy et al., 2009). As a result, Canada continues to prioritize the selection of nurses for immigration (Government of Canada, 2014). Facilitating the professional integration of internationally educated nurses (IENs) is viewed as a key strategy for increasing Canada's ability to respond to the projected nursing shortages (Health Canada, 2010).

Currently, approximately 7.2% (25,656) of the Canadian regulated nursing workforce is internationally educated (Canadian Institute for Health Information, 2013). IENs from many countries with varied educational preparation and professional experience continue to migrate to Canada. Once in Canada, they settle in different areas of the country that have different requirements for registration and offer different levels of support to help them integrate into the nursing profession (Bourgeault, Neiterman, LeBrun, Viers, & Winkup, 2010). Differences in their nursing education and level of support are thought to explain why some IENs become regulated nurses while others experience serious difficulties and never integrate into the profession in Canada. In the absence of data systems to track the immigration and integration of IENs, it is impossible to determine the exact number of IENs who are not registered with a regulatory college and to explain why some are unable to practise in Canada. When IENs cannot practise nursing, Canada loses valuable health human resources (Kolawole, 2009).

Over the last decade considerable financial investment and policy development have been directed towards helping IENs meet the requirements for registration and secure employment as nurses (Health Canada, 2010). Consequently this scoping review is a timely and important addition to the literature. Its purpose is to map key themes in the Canadian literature on the professional integration of IENs, identify the types and sources of and gaps in evidence, and provide recommendations for research.

Methodology

Our work was guided by an updated version of Arksey and O'Malley's (2005) six-stage methodological framework for scoping reviews (Levac, Colquhoun, & O'Brien, 2010). Below, we present the process used to conduct our scoping review, describing each stage of the methodological framework.

Stage 1: Identifying the Research Questions

Since the purpose of a scoping review is to summarize a large amount of literature on a topic, the research questions are broad (Levac et al., 2010).

The research questions for our scoping review were as follows: *What types and sources of evidence are available for IENs in Canada? What is the focus of the conceptual and empirical literature on IENs in Canada? What are the gaps in evidence that can be addressed by research?*

Stage 2: Identifying the Academic and Grey Literature

To begin the literature identification process, we assembled a team of researchers who were experts in scoping review methodology and had extensive content experience in the area of IENs. We also formed an advisory council of IEN stakeholders: representatives from academia, federal and provincial/territorial government organizations, and professional regulatory colleges and nursing associations that work with or on behalf of IENs.
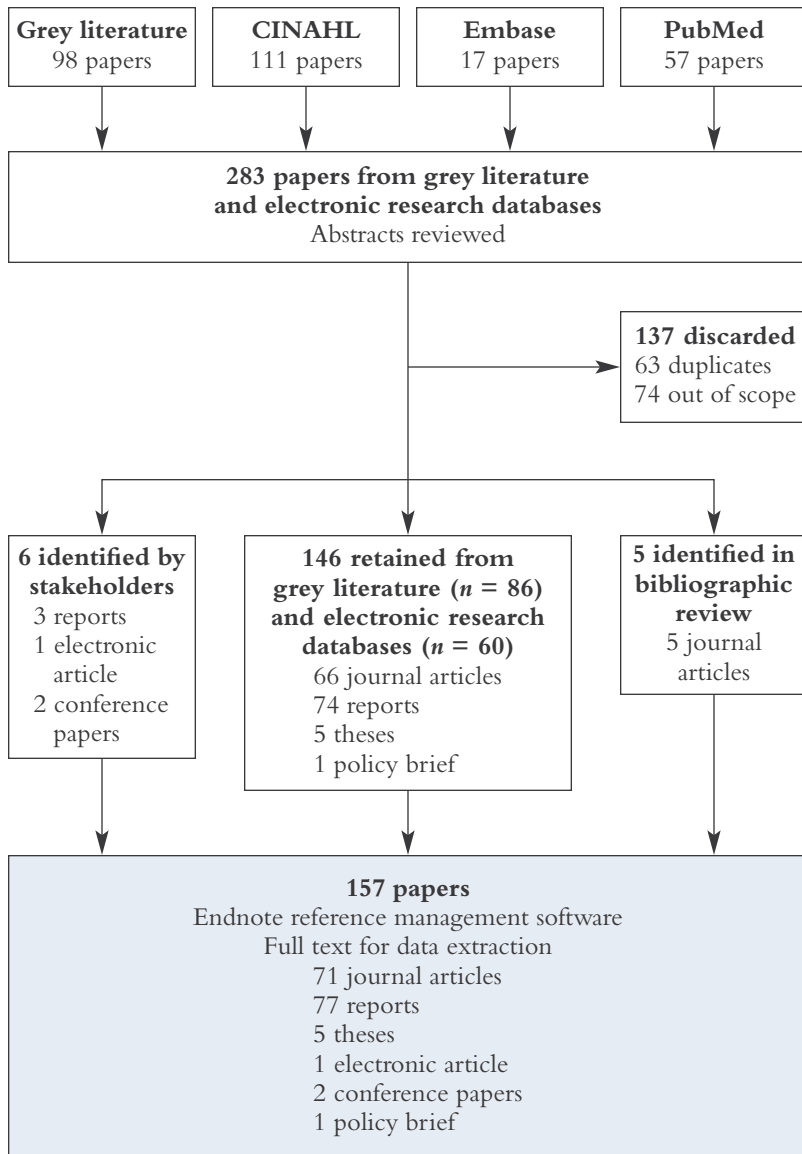
The inclusion criteria were as follows: papers issued from 2000 to 2013 inclusive, in the English or French language, about IENS in Canada. We excluded papers if they were outside the timeframe allotted for the review or if they were not about IENs in Canada.

To ensure comprehensiveness of the review, we used multiple strategies to locate both the academic and the grey literature. The academic literature was searched through the electronic databases CINAHL, Embase, and PubMed. The keywords used (alone and in combination) were "nurses," "health professionals," "internationally educated," "migrant," "foreign-trained," "immigrant," and "Canada." Using the same criteria, we searched the grey literature through the Canadian Electronic Library, the Canadian Health Human Resources Network library, and the Web sites of federal, provincial, and territorial governments and professional and immigrant associations. We conducted hand searches of the bibliographies of the identified literature. We also consulted our advisory council for further literature sources. The search produced a total of 283 papers.

Stage 3: Selecting the Literature

A systematic process was used to select the literature for our scoping review. We imported the search into a reference-management program and discarded 63 duplicate papers. The abstracts for the remaining 220 were screened by two members of our team to determine their relevance to the review's purpose and the research questions. This resulted in the discarding of 74 papers that were not about IENs in Canada or were outside the period covered in the review. Our bibliographic review produced five journal articles. The advisory council identified six additional literature sources. The remaining 157 papers were subjected to full-text screening. Figure 1 summarizes the literature search and selection.

Figure 1   *Academic and Grey Literature Search and Selection*

Grey literature	CINAHL	Embase	PubMed
98 papers	111 papers	17 papers	57 papers

**283 papers from grey literature
and electronic research databases**
Abstracts reviewed

137 discarded
63 duplicates
74 out of scope

6 identified by stakeholders	**146 retained from grey literature (*n* = 86) and electronic research databases (*n* = 60)**	**5 identified in bibliographic review**
3 reports	66 journal articles	5 journal articles
1 electronic article	74 reports	
2 conference papers	5 theses	
	1 policy brief	

157 papers
Endnote reference management software
Full text for data extraction
71 journal articles
77 reports
5 theses
1 electronic article
2 conference papers
1 policy brief

Stage 4: Extracting and Charting the Data

To ensure standardization of data extraction and charting across the team (Levac et al., 2010), we developed a charting tool in Microsoft Excel. The

categories for data extraction reflected our research questions: type of paper (journal article, report, thesis, electronic article, conference paper, policy brief); if applicable, research method (qualitative, quantitative, mixed-method); geographic location (pan-Canadian, province or territory); and themes.

The themes were developed after each team member had carefully read and reread the literature. The priori template of major themes was developed to reflect the stages of professional integration: pre-immigration and early arrival, professional recertification, workforce integration, and workplace integration. As shown in Table 1, standard definitions were developed for each major theme. Minor themes were developed inductively and used to organize the information within each major theme. To ensure that the data-extraction process was reliable — that is, consistent with the research questions — each team member used the charting tool to independently extract data from 10 papers and the results were compared (Levac et al., 2010). Discrepancies in the coding were discussed by the team and the tool was refined before we proceeded with data extraction.

Table 1 *Themes*		
Major Themes	**Definition**	**Minor Themes**
Pre-immigration and early arrival	The activities that IENs engage in prior to migration and upon arrival to prepare for practising their profession in Canada	▪ Push and pull factors ▪ Ethics of international recruitment ▪ Pre-arrival activities ▪ Early arrival programs
Professional recertification	The process that IENs engage in to meet the requirements for registration with a nursing regulatory college in Canada	▪ Credential verification and assessment ▪ Licensing examination ▪ Bridging programs ▪ Alternative types of employment as paths to professional recertification
Workforce integration	When IENs receive their licence to practise nursing and are employed as regulated nurses in Canada	▪ Barriers and facilitators
Workplace integration	When IENs become staff members of an organization where they can use their nursing knowledge and expertise	▪ Barriers and facilitators ▪ Racism and discrimination

Stage 5: Collating, Summarizing, and Reporting the Results

We collated the extracted data into numerical and qualitative thematic summaries. To address our research questions we used frequencies to report the numerical data. We reported qualitative data by summarizing it in narrative syntheses. We then analyzed our findings in relation to the purpose of the scoping review and identified gaps and areas for future research. In accordance with scoping review methodology, we did not appraise the quality of the literature (Grimshaw, 2010).

Stage 6: Consultation

The advisory council was consulted at three stages in the review. During the first stage they provided feedback on the research questions. During the third stage they made suggestions for additional literature. At the final consultation they provided feedback on the findings.

Findings

General information about the types and sources of evidence identified during the charting process is presented below, followed by the numerical and qualitative thematic analyses organized by major theme: pre-immigration and early arrival, professional recertification, workforce integration, and workplace integration. The gaps in evidence are highlighted within each theme.

Types and Sources of Evidence

Of the 157 selected papers, 148 were journal articles and reports issued by government agencies, professional associations, or nongovernmental organizations. The remaining nine were theses, electronic articles, conference papers, and a policy brief. The majority were produced by a national body or generated by authors from the province of Ontario. Approximately 22% of the papers ($n = 34$) were research studies, nearly all using descriptive qualitative methods, primarily semi-structured interviews. The remaining papers were non-empirical, such as commentaries/opinion pieces, evaluations of exploratory projects, or reports issued by professional associations.

IENs are defined in the literature as nurses who have migrated to Canada but whose basic nursing education was obtained in another country. The literature does not differentiate between IENs who enter as immigrants intending to permanently reside and work in Canada and those who are "holiday migrants" intending to work during a temporary stay in Canada. The literature does not explore how IENs' immigration status (e.g., permanent or temporary) or category (e.g., economic immigrant, family class, refugee, student) influences their intention to profes-

sionally recertify and practise their profession in Canada. Additionally, the literature does not differentiate IENs according to their academic preparation or nursing expertise.

Numerical analysis of the themes indicates that the literature focuses on the first two stages of IENs' professional integration (Figure 2). The pre-immigration and early arrival literature is concerned mainly with the ethics of international recruitment and strategies that IENs can use to prepare for migration. The professional certification literature concentrates on the barriers to verification and assessment of credentials and the strategies and programs available to address them.
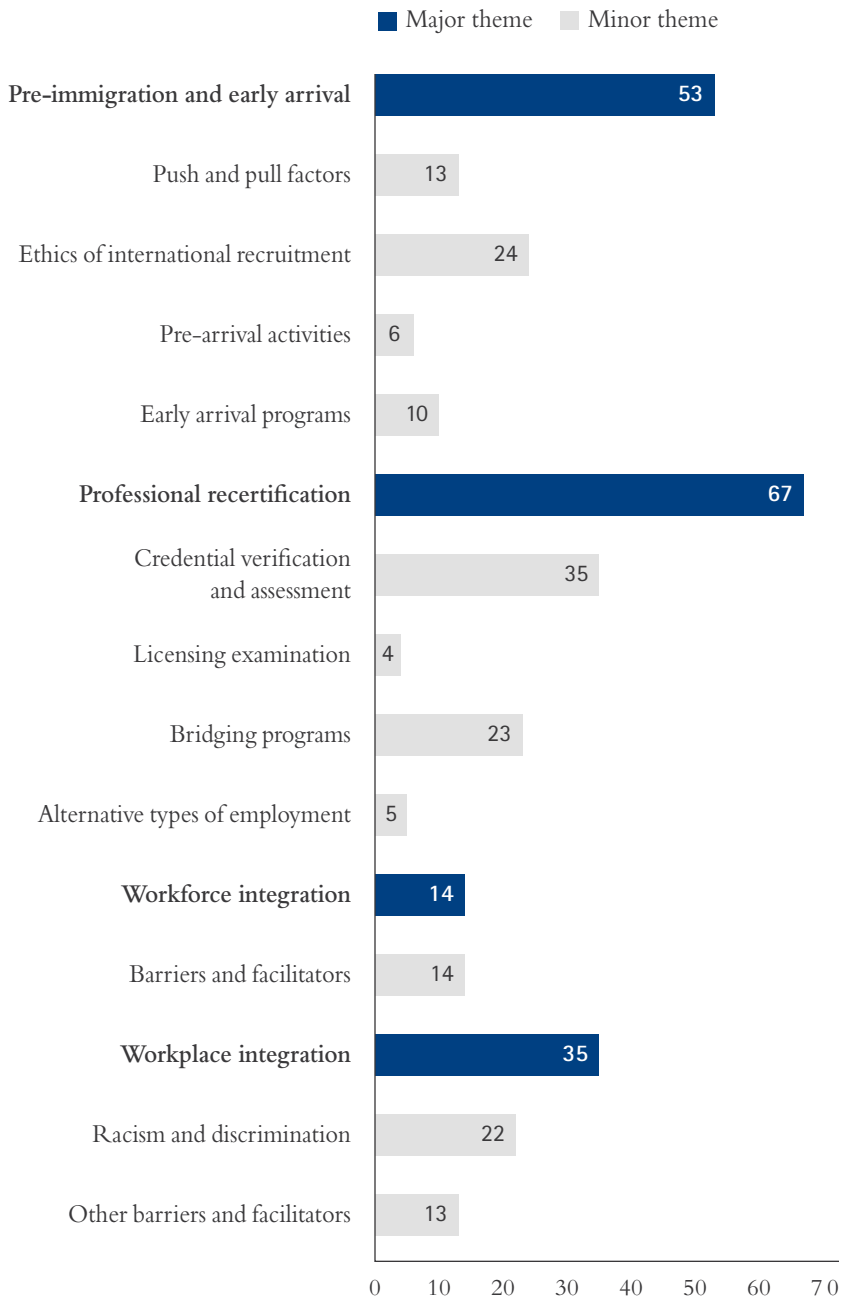
Pre-immigration and Early Arrival

The pre-immigration and early arrival literature reveals the minor themes of "push" and "pull" factors, the ethics of international recruitment, pre-arrival activities, and early arrival programs ($n = 53$). While largely focused on the ethics of international recruitment, it also discusses the factors that push and pull IENs to migrate to Canada, describes strategies that IENs can adopt prior to migration, and describes programs available to support IENs during the resettlement period.

Push and pull factors. Thirteen papers discuss the factors that contribute to IENs' decision to migrate. The factors that push IENs to leave their home country include broad political, financial, and/or social difficulties as well as professional issues such as lack of medical resources, poor working conditions, or low remuneration (Baldacchino & Saunders, 2010; Khaliq, Broyles, & Mwachofi, 2009; Ronquillo, Boschma, Wong, & Quiney, 2011). The factors that pull IENs to Canada are often personal, such as a better quality of life for their families and educational opportunities for their children (Blythe, Baumann, Rheaume, & McIntosh, 2009; Ronquillo et al., 2011). Professional factors such as ability to earn higher wages, advance their education, and develop their nursing expertise are recognized as those that pull IENs to Canada (Bourgeault et al., 2010; Khaliq et al., 2009). While the literature discusses push and pull factors, there is no evidence as to which factors are most or least important or how they interact with each other.

Ethics of international recruitment. The ethics of international recruitment is particularly salient in the literature ($n = 24$). Of concern is the impact of overseas recruitment on the nursing human resources of the sending countries and the likelihood of IENs recertifying as nurses once in Canada (McIntosh, Torgerson, & Klassen, 2007). The literature acknowledges that Canada does not actively recruit nurses at the national level; however, there are reports on the direct recruitment of IENs by private agencies and provincial/territorial or regional health authorities (Beaton & Walsh, 2010; Saskatchewan Registered Nurses Association

Figure 2 *Frequency of Major and Minor Themes*

Theme	Value
Major theme ■ **Minor theme** ▨	
Pre-immigration and early arrival	53
Push and pull factors	13
Ethics of international recruitment	24
Pre-arrival activities	6
Early arrival programs	10
Professional recertification	67
Credential verification and assessment	35
Licensing examination	4
Bridging programs	23
Alternative types of employment	5
Workforce integration	14
Barriers and facilitators	14
Workplace integration	35
Racism and discrimination	22
Other barriers and facilitators	13

[SRNA], 2008). There is little formal literature describing direct recruitment initiatives or their influence on IENs' professional recertification or long-term employment.

Pre-arrival activities. The six papers on pre-arrival activities focus on strategies that IENs can use to expedite the credential verification process. These activities include gathering relevant documents, learning about the Canadian health-care system, writing the licensing examination, improving language skills, providing the regulatory college with evidence of language fluency, and, when necessary, having their clinical skills evaluated (Bassendowski & Petrucka, 2010; Singh & Sochan, 2010). If IENs require upgrading, locating the appropriate courses and making logistical and financial plans are additional measures they can take prior to migrating (Atack, Cruz, Maher, & Murphy, 2012). IENs who adopt these strategies seem to recertify more easily than those who begin the recertification process after arriving (Government of Canada, 2011). However, there is little evidence to support this observation.

Early arrival programs. Ten papers include information about early-arrival programs designed to provide IENs with assistance during the resettlement process. IEN advocacy groups and associations provide information, guidance, social support, and education (Western and Northern Health Human Resources Planning Forum, 2006). To address the financial barrier to registration, Human Resources and Skills Development Canada (HRSDC) introduced the Foreign Credential Recognition Loans Pilot to help internationally educated health professionals offset the cost of recertifying (HRSDC, 2010). With the support of HRSDC, several provinces and territories have set up micro-credit loan programs to assist newcomers with fees associated with recertification. The literature does not address the effectiveness of these programs.

Professional Recertification

The professional recertification literature includes the minor themes of credential verification and assessment, licensing examinations, bridging programs, and alternative types of employment as paths to recertification ($n = 67$). The literature focuses on the challenges that IENs face during the recertification process, such as getting their credentials verified and assessed and passing the licensing examination.

Credential verification and assessment. The first step in obtaining a professional licence in Canada is having one's credentials formally verified and assessed through a provincial nursing regulatory college. The 35 papers centred on the credential verification and assessment process describe the complications that can ensue if an IEN is unfamiliar with the Canadian accreditation system, lacks the necessary documentation, or does not know to which regulatory college the documents should be

submitted. These barriers can be compounded if the IEN has poor language proficiency (Alberta Network of Immigrant Women [ANIW], 2005).

IENs use several strategies to obtain information about the credential verification and assessment process (Murphy, 2008). Many IENs report difficulty securing information about how to qualify for the licensing examination and the paperwork necessary to have their credentials verified and assessed (Sochan & Singh, 2007). To address these obstacles, regulatory colleges and governments across the country have established assessment centres and developed strategies to ensure that as many IENs as possible have access to timely and transparent verification and assessment (Cartmel, 2009; Turner, 2009). The competency assessments, such as the Prior Learning Assessment and Recognition developed by the College of Nurses of Ontario, are based on provincial entry-level competencies. They are designed to help the regulatory colleges determine whether an IEN meets the requirements for recertification (Belkhodja et al., 2009). There is little literature describing the outcomes of these initiatives.

Licensing examinations. Facilitation of IENs' successful performance on the Canadian Registered Nurses Examination (CRNE) is less evident in the literature, with only four papers specifically discussing this issue. The CRNE pass rate for IENs is 45% to 56% — well below the 87% average achieved by Canadian-educated nurses (CNA, 2013). Poor language proficiency is the most frequently cited reason for IENs failing the licensing examination (Newton, Pillay, & Higginbottom, 2012). This finding is supported by CNA statistics indicating that IENs from countries where nursing education is in English, such as the Philippines, consistently outperform those from non-English-speaking countries (CNA, 2013). Another reason why IENs have difficulty with the examination is cultural biases (Jeans, Hadley, & Green, 2005). On average, it takes IENs more than one attempt to pass the CRNE (Blythe & Baumann, 2009).

Quebec does not use the CRNE but instead administers a paper test and a practical session where nurses provide care to simulated patients. IENs in Quebec must participate in a bridging program and meet French-language requirements (Ordre des infirmières et infirmiers du Québec [OIIQ], 2014). Approximately 4% of nurses registered in Quebec are IENs (OIIQ, 2004).

The literature search did not locate information about IENs' performance on the Canadian Practical Nurse Registration Examination (CPNRE) or the Registered Psychiatric Nurses of Canada Examination (RPNCE). The reasons why IENs pursue licensing as registered practical nurses or registered psychiatric nurses are not well described in the literature.

Bridging programs. The literature includes 23 papers that discuss professional bridging programs in Canada. These programs have been established to address the various barriers to IENs' achieving recertification. In 2012 approximately 35 bridging programs were available for IENs in Canada (Canadian Association of Schools of Nursing, 2012). There are variations in models and curricula, and not all bridging programs include clinical placements. The literature offers various recommendations with respect to bridging programs. These include orientation to the Canadian health-care system (Baumann, Blythe, Rhéaume, & McIntosh, 2006), language assessment and instruction, and curricula to address theory and practice gaps specific to the Canadian context such as long-term care and psychiatry (Bard, 2009; McGuire & Murphy, 2005). Coffey (2006) recommends that bridging programs include curricula supporting the entry-to-practice Bachelor of Science degree now compulsory in most provinces.

Direct-to-work bridging programs have been developed to facilitate the integration of IENs who were recruited overseas to work in Canada (SRNA, 2008). Though the literature does not describe these programs fully, they are known to include clinical placements and to provide IENs with continuing support in the workplace. There is little evidence detailing the outcomes of these programs.

Less prevalent in the literature is information about including IENs in existing nurse refresher programs as a form of bridging. The literature does stress that nurse refresher curricula are designed specifically for Canadian-educated nurses who have been out of the workforce. Since Canadian-educated nurses participate in nurse refresher courses to update their knowledge and skills when returning to the workforce, these courses are not designed to meet the needs of IENs (ANIW, 2005). Nonetheless, some IENs have found it beneficial to attend, especially when bridging programs are not readily available (Bourgeault et al., 2010).

The literature cites several barriers to IEN participation in bridging programs. These include geographic mal-distribution, in that bridging programs are generally clustered in urban areas, the length of time required to complete a program and the associated loss of income, and tuition (Atack et al., 2012). IENs' participation in bridging programs is adversely affected by the isolation and provisional funding scheme associated with these programs (Duncan, Poisson, & Wong, 2008). While the literature describes the different types of bridging program, it does not identify which ones are the most effective.

Alternative employment as a path to professional recertification. Five papers discuss the influence of alternative employment on professional recertification. One of these focuses on IENs, particularly from the

Philippines, who enter the country under the Canadian Live-in Caregiver Program to care for children, the elderly, or the disabled (Bourgeault et al., 2010). Some IENs working as live-in caregivers intend to recertify after fulfilling their initial work contract (Blythe & Bauman, 2009). This type of employment affords IENs an opportunity to develop their social networks, improve their language and communication skills, and learn about the culture of health care in Canada. However, they also create obstacles to recertification. IENs working as caregivers often do not have the time to participate in bridging programs or to prepare for the licensing examination (Salami & Nelson, 2014). The inability to pursue recertification, in combination with their absence from nursing, puts IENs with this type of employment at risk for never resuming their profession in Canada (Baumann, Blythe, & Ross, 2010; Sochan & Singh, 2007). The literature does not address IENs working in other health-care jobs as paths to professional recertification.

Workforce Integration

The literature on workforce integration provides some insights into IENs' experiences when attempting to enter the nursing workforce in Canada (*n* = 14). This literature focuses on the facilitators and barriers that IENs encounter during their initial job search.

Barriers and facilitators. IENs are more likely to be hired if they have nursing experience in Canada or in a country with an equivalent health-care environment, have strong language skills, and are willing to work in hard-to-fill sectors of the health-care system (Baumann et al., 2010). IENs who prearranged their employment through recruitment agencies or migrated with employer-sponsored work contracts seem to enter the labour market more quickly than those who begin their job search after arriving in Canada (Bard, 2009).

IENs can have difficulty securing employment in their chosen setting or clinical area (Blythe et al., 2009). Many IENs feel unwelcome or discriminated against when looking for work (Turrittin, Hagey, Gurgue, Collin, & Mitchell, 2002). Some are forced to work for temporary placement agencies or as health-care aides (Salami & Nelson, 2014).

The literature cites two reasons for employers' failure to hire IENs. First, employers do not hire IENs if they believe that IENs lack the nursing knowledge, expertise, or language skills necessary to practise safely. Second, employers often lack the financial or human resources required to provide the education and mentoring IENs need to successfully integrate into the organization (ANIW, 2005; Baumann, Blythe, Idriss-Wheeler, Fung, & Grabham, 2013). There is little information available about the processes that IENs use to pursue employment. In-

depth investigation into the hiring process from the employer's perspective is also lacking.

Workplace Integration

The literature on workplace integration shows that even after IENs secure employment they continue the integration process (Murphy, 2008). A total of 35 papers examine issues associated with IEN workplace integration.

   Barriers and facilitators. Thirteen papers draw attention to the difficulties encountered by IENs while adjusting to nursing in Canada (Tregunno, Peters, Campbell, & Gordon, 2009). For example, some IENs find it a challenge to adapt to the assertiveness of Canadian nurses and the manner in which they communicate with doctors (SRNA, 2008). Some IENs also have difficulty acting as patient advocates or applying the concepts of legislation and jurisprudence to nursing practice (Baumann et al., 2006). Neiterman and Bourgeault (2013) describe this phenomenon as lack of cultural competence, explaining that cultural differences can adversely affect IENs' integration. Mentorship, managerial support, participation in employer-sponsored orientation programs, and development of nursing knowledge, language skills, and professional vocabulary can help IENs develop cultural competence and integrate into the workplace (Salma, Hegadoren, & Ogilvie, 2012).

Racism and Discrimination

Twenty-two papers describe the racism and discrimination that IENs experience in the workplace (Hagley et al., 2001). The literature includes examples of the behaviours and policies that IENs perceive as racist and discriminatory, such as denial of professional development and social exclusion (Turritin et al., 2002). The literature does not address employers' responses to racism and discriminatory practices directed at IENs. Baumann et al. (2013) report on a multimodal resource designed to assist employers with recruitment, hiring, orientation, and ongoing support to IENs. This informational and strategic resource was found to increase employers' awareness of the potential for racism and discrimination directed at IENs in the workplace.

Discussion and Recommendations for Research

This scoping review has revealed the small amount of research conducted on IENs in Canada. The lack of evidence has resulted in limited information being available about the IEN population, especially those IENs who are not registered with a regulatory college in Canada. More in-depth information about IENs — their immigration status, education,

nursing expertise, and professional intentions — would be helpful in tailoring programs and policies to the needs of IENs who experience difficulty or who decide to withdraw from the professional recertification process. Such information could also help in determining whether the policies and programs designed to facilitate professional integration enable most IENs to recertify and practise nursing in Canada.

Many resources have been developed to support the professional recertification of IENs, such as assessment centres, language courses, and bridging programs. However, there is very little empirical evidence regarding their effectiveness. This lack of evidence affects our ability to modify or develop best practices as well as to substantiate their ongoing financial support. Also, since the resources available to help IENs recertify vary considerably across the country, comparative analyses of bridging program models and curricula are needed. We also need to increase our understanding of how alternative forms of employment, within and outside the health-care milieu, influence IENs' ability to recertify.

While we have an appreciation of the push and pull factors in IENs' migration to Canada, we have little understanding of how these factors influence professional recertification and employment. We also know very little about the long-term outcomes of direct recruitment initiatives. We need more research on how push and pull factors influence IENs, the organizations in which they work, and the Canadian labour market.

Lacking also is comprehensive information about the processes that IENs engage in when searching for work and the factors that influence their employment decisions. Exploring the hiring process from the perspective of employers would deepen our understanding of their decisions with regard to hiring IENs. Additional research is also needed to develop evidenced-based strategies to support and retain IENs once they have been hired. Further investigation into the discriminatory practices and racism encountered by IENs in the workplace and employers' role in addressing these behaviours is warranted.

The influence of language fluency on IENs' professional recertification and integration into the workforce and the workplace is an area that requires further study. There is limited discussion in the literature about the degree of fluency required to successfully practise nursing in Canada. How IENs' language proficiency affects career advancement opportunities, interprofessional teamwork, and patient safety is another important area for future research.

Conclusions

This scoping review has revealed that the literature on IENs in Canada is focused on the initial stages of IENs' integration, specifically the ethics

of international recruitment and the methods of and strategies for expediting the credential verification and assessment process. The literature also indicates that professional organizations and governments have developed a variety of resources to help IENs navigate the integration process. However, more research is needed to evaluate their effectiveness and identify promising practices. Additional evidence will help governments, both domestically and internationally, modify, maintain, and develop programs to facilitate the integration of IENs into the workforce.

References

Alberta Network of Immigrant Women. (2005). *Access to licensure for internationally educated nurses: Follow up study*. Calgary: Author. Retrieved December 12, 2012, from http://www.aniw.org/index.php/about–us/publications.

Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology, 8*(1), 19–32.

Atack, L., Cruz, E.V., Maher, J., & Murphy, S. (2012). Internationally educated nurses' experiences with an integrated bridge program. *Journal of Continuing Education in Nursing, 43*(8), 370–378.

Baldachhino, G., & Saunders, P. (2010). *Internationally educated health professionals in Nova Scotia and Prince Edward Island: Why they come, why they stay and the challenges they face. A follow up study.* IEHP Atlantic Connection. Retrieved December 13, 2012, from http://www.atlanticcanadahealthcare.com/images/pdf/Stories_and_Voices_Final_Report.pdf.

Bard, R. (2009). Towards a balance between security and mobility of nurses in Canada. *Soins : la Revue de Référence Infirmière, (739)*, 45–47.

Bassendowski, S., & Petrucka, P. (2010). *A consideration of transition for internationally educated nurses in Saskatchewan: IEN research report. Final report*. Regina: Government of Saskatchewan. Retrieved December 12, 2012, from http://www.health.gov.sk.ca/Default.aspx?DN=df390851-4650-4b3b-a462-370d84988523&l=English.

Baumann, A., Blythe, J., Iriss-Wheeler, D., Fung, M., & Grabham, A. (2013). *A framework for integrating internationally educated nurses into the health care workforce. Ontario Health Promotion e-Bulletin, 768, September 21.* Retrieved December 2, 2013, from http://nhsru.com/wp-content/uploads/2013-Series–36-Framework_for_Integrating_IENs_into_the_Healthcare_Workforce_FINAL_REPORT_March–28_2013_–NHSRU_OHA.pdf.

Baumann, A., Blythe, J., Rhéaume, A., & McIntosh, K. (2006). *Internationally educated nurses in Ontario: Maximizing the brain gain* (2nd ed.). Health Human Resource Series 3. Hamilton ON: Nursing Health Services Research Unit, McMaster University. Retrieved December 12, 2012, from http://www.ceris.metropolis.net/Virtual%20Library/other /Blythe2006IntTrainedNursesinOntario.pdf.

Baumann, A., Blythe, J., & Ross, D. (2010). Internationally educated health professionals: Workforce integration and retention. *Healthcare Papers, 2*(8), 8–20.

Beaton, M., & Walsh, J. (2010). Overseas recruitment: Experiences of nurses immigrating to Newfoundland and Labrador, 1949–2004. *Nursing Inquiry, 17*(2), 173–183.

Belkhodja, C., Forgues, E., Gaboury, I., Guignard Noel, J., Bahi, B., Nkolo, C., & Tawil, N. (2009). *L'intégration des diplômes internationaux en sante francophones dans les communautés francophones en situation minoritaire. Rapport final de recherché*. Ottawa: Consortium national de formation en santé and Institut canadien de recherche sur les minorités linguistiques. Retrieved December 10, 2012, from http://www.icrml.ca/fr/site_content/91-eric-forgues/705-les-facteurs-dintation-des-dipl-internationaux-en-santdis-dans-les-communaut-francophones-en-situation-minoritaire.

Blythe, J., & Baumann, A. (2009). Internationally educated nurses: Profiling workforce diversity. *International Nursing Review, 56*(2), 191–197.

Blythe, J., Baumann, A., Rhéaume, A., & McIntosh, K. (2009). Nurse migration to Canada: Pathways and pitfalls of workforce integration. *Journal of Transcultural Nursing, 20*(2), 202–210.

Bourgeault, I. L., Neiterman, E., LeBrun, J., Viers, K., & Winkup, J. (2010). *Brain gain, drain and waste: The experiences of internationally educated health professionals in Canada*. Ottawa: Canadian Health Human Resources Network. Retrieved December 2, 2012, from http://www.threesource.ca/documents/February 2011/brain_drain.pdf.

Canadian Association of Schools of Nursing. (2012). *Toward a pan-Canadian planning framework for health human resources: A final report on the Pan-Canadian Framework of Guiding Principles and Essential Components for IEN Bridging Programs*. Ottawa: Author. Retrieved March 15, 2013, from https://www.casn.ca/en/Competencies_and_indicators_168/items/2.html.

Canadian Institute of Health Information. (2013). *Regulated nurses: Canadian trends, 2007 to 2011*. Ottawa: Author. Retrieved June 20, 2014, from http://secure.cihi.ca/cihiweb/products/nursing_report_2007-2011_en.pdf.

Canadian Nurses Association. (2013). Statistics on CRNE writers for calendar year 2012. *CRNE Bulletin, 17* (April). Retrieved June 20, 2014, from http://www.cna-aiic.ca/~/media/cna/page%20content/pdf%20en/2013/07/25/13/54/crne_bulletin_17_2013.pdf.

Cartmel, V. (2009). Assessing an applicant's competencies to practice. *Nursing BC/Registered Nurses Association of British Columbia, 41*(1), 4.

Coffey, S. (2006). Educating international nurses: Curricular innovation through a Bachelor of Science in Nursing bridging program. *Nurse Educator, 31*(6), 244–248.

Duncan, D., Poisson, Y., & Wong, W. (2008). *Improving bridging programs: Compiling best practices from a survey of Canadian bridging programs*. Ottawa: Public Policy Forum. Retrieved December 15, 2012, from http://www.ppforum.ca/publications/improving-bridging-programs-compiling-best-practices-survey-canadian-bridging-programs.

Government of Canada. (2014). *Applications we accept – federal skilled workers*. Ottawa: Author. Retrieved June 20, 2014, from http://www.cic.gc.ca/english/immigrate/skilled/complete-applications.asp.

Grimshaw, J. (2010). *A guide to knowledge synthesis: A knowledge synthesis chapter*. Ottawa: Canadian Institutes of Health Research. Retrieved May 20, 2014, from http://www.cihr-irsc.gc.ca/e/41382.html.

Hagley, R., Choudhry, U., Guruge, S., Turrittin, J., Collins, E., & Lee, R. (2001). Immigrant nurses' experience of racism. *Journal of Nursing Scholarship, 33*(4), 389–394.

Health Canada. (2010). *Health human resource strategy and Internationally Educated Health Professionals Initiative 2009/10 annual report*. Ottawa: Author. Retrieved December 14, 2012, from http://www.hc-sc.gc.ca/hcs-sss/pubs/hhrhs/2010-ar-ra/index-eng.php.

Human Resources and Skills Development Canada. (2010). *Summative evaluation of the Foreign Credential Recognition Program: Final report*. Ottawa: Author. Retrieved December 12, 2012, from http://www.esdc.gc.ca/eng/publications/evaluations/skills_and_employment/2010/april.shtml.

Jeans, M. E., Hadley, F., & Green, J. (2005). *Navigating to become a nurse in Canada. Assessment of international nurse applicants: Final report*. Ottawa: Canadian Nurses Association. Retrieved December 10, 2012, from http://www.cna-aiic.ca/~/media/cna/page%20content/pdf%20fr/2013/09/05/19/17/ien_technical_report_e.pdf.

Khaliq, A. A., Broyles, R. W., & Mwachofi, A. K. (2009). Global nurse migration: Its impact on developing countries and prospects for the future. *Nursing Leadership, 22*(1), 24–50.

Kolawole, B. (2009). Ontario's internationally educated nurses and waste in human capital. *International Nursing Review, 56*(2), 184–190.

Levac, D., Colquhoun, H., & O'Brien, K. (2010). Scoping studies: Advancing the methodology. *Implementation Science, 10*(5), 69.

McGuire, M., & Murphy, S. (2005). The internationally educated nurse. *Canadian Nurse, 101*(1), 25–29.

McIntosh, T., Torgerson, R., & Klassen, N. (2007). *The ethical recruitment of internationally educated health professionals: Lessons from abroad and options for Canada. Research report*. Ottawa: Canadian Policy Research Network. Retrieved December 12, 2012, from http://www.cprn.org/documents/46781_en.pdf.

Murphy, S. (2008). *Actualizing the dream: Experiences of internationally-educated nurses*. Unpublished doctoral dissertation, University of Calgary.

Neiterman, E., & Bourgeault, I. (2013). Cultural competence of internationally educated nurses: Assessing problems and finding solutions. *Canadian Journal of Nursing Research, 45*(4), 88–107.

Newton, S., Pillay, J., & Higginbottom, G. (2012). The migration and transitioning experiences of internationally educated nurses: A global perspective. *Journal of Nursing Management, 20*(4), 534–550.

Ordre des infirmières et infirmiers du Québec. (2004). *Les infirmières formées l'étranger et l'accès la profession au Québec*. Montreal: Author. Retrieved December 11, 2012, from http://www.oiiq.org/publications/repertoire/les-infirmieres-formees-a-letranger-et-lacces-a-la-profession-au-quebec.

Ordre des infirmières et infirmiers du Québec. (2014). *How to obtain a nursing permit from Ordre des infirmières et infirmiers du Québec*. Montreal: Author.

Retrieved June 14, 2014, from http://www.oiiq.org/sites/default/files/uploads/pdf/admission_a_la_profession/infirmiere_formee_hors_quebec/obtain_nursing_permit.pdf.

Ronquillo, C., Boschma, G., Wong, S. T., & Quiney, L. (2011). Beyond greener pastures: Exploring contexts surrounding Filipino nurse migration in Canada through oral history. *Nursing Inquiry, 18*(3), 262–275.

Salami, B., & Nelson, S. (2014). The downward occupational mobility of internationally educated nurses to domestic workers. *Nursing Inquiry, 21*(2), 153–161.

Salma, J., Hegadoren, K., & Ogilvie, L. (2012). Career advancement and educational opportunities: Experiences and perceptions of internationally educated nurses. *Nursing Leadership, 25*(3), 56–67.

Saskatchewan Registered Nurses Association. (2008). *Saskatchewan international recruitment: Lessons learned and recommendations for the future.* Regina: Author.

Singh, M. D., & Sochan, A. (2010). Voices of internationally educated nurses: Policy recommendations for credentialing. *International Nursing Review, 57*(1), 56–63.

Sochan, A., & Singh, M. D. (2007). Acculturation and socialization: Voices of internationally educated nurses in Ontario. *International Nursing Review, 54*(2), 130–136.

Tomblin-Murphy, G., Birch, S., Alder, R., MacKenzie, A., Lethbridge, L., Little, L., & Cook, A. (2009). *Tested solutions for eliminating the Canadian registered nurses shortage.* Ottawa: Canadian Nurses Association.

Tregunno, D., Peters, S., Campbell, H., & Gordon, S. (2009). International nurse migration: U-turn for safe workplace integration. *Nursing Inquiry, 16*(3), 182–190.

Turner, K. (2009). Road to licensure for international educated nurses (IEN). *SRNA Newsbulletin, 11*(2), 22–22.

Turrittin, J., Hagey, R., Gurgue, S., Collin, E., & Mitchell, M. (2002). The experiences of professional nurses who have migrated to Canada: Cosmopolitan citizenship or democratic racism? *International Journal of Nursing Studies, 39*(6), 655–667.

Western and Northern Health Human Resources Planning Forum. (2006). *An environmental scan of programs and services available to internationally educated health professionals.* Victoria: Author. Retrieved December 10, 2012, from www.hhrpforum.com/.

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