Official Language Competency and Country of Origin Impact on Health Workforce Integration in Canada

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Abstract
Skilled immigrants are actively recruited by developed countries in Europe and North America to address health force labour shortages. Although recruitment and selection processes are subject to strict regulations in Canada, internationally educated nurses continue to experience major difficulties with foreign credential recognition and obtaining employment. This study explores the different ways in which English or French, the official language requirements, intersects with immigrants’ ethnocultural background and integration. Key factors such as the timing of migration, age and professional English language competency, and pre-migration experiences were found to have a combined impact on employment success. Nurses with high levels of language proficiency acquired during the pre-immigration period and enhanced following migration had higher levels of economic integration. This study illustrated that current immigration policies would benefit from a closer examination of the match between pre-migration experiences and the required professional skills of the host country.
Introduction

Recruiting economic immigrants is a common policy strategy to address skilled human resource shortages. Canada continues to be a major destination country for internationally educated nurses (IENs). As a result of major barriers in accessing employment equivalent to locally educated professionals, many internationally educated health professionals’ knowledge and skills are under-utilized. Systemic barriers include difficulties with foreign credential recognition, meeting language requirements, passing licensing examinations and lack of finances. Consequently, the failure to gain entry into the workforce in order to use pre-migration professional experience and credentials often leads to the lack of economic integration.

IENs in Canada, with a cultural heritage or ethnicity markedly different from English speaking countries, have experienced greater integration challenges. Immigrants’ ethnicity affects workforce integration in a variety of ways. Ethnicity is a multi-faceted quality of the group to which people belong as a result of sharing certain characteristics, such as geographical and ancestral origins (cultural traditions and languages) including underlying factors such as language, religion, country of birth, and family origins. Prior to migration, immigrants’ racial/ethnic status may never have mattered; however, after arrival, “how immigrants’ racial/ethnic status fits into the larger racial/ethnic hierarchy in the host country plays an important role” in shaping workforce integration. How ethnicity influences the IEN workforce integration, pre- and post-migration, warrants further study.

Current Canadian immigration admission policies tend to prioritize immigrants from selected regions or countries, thereby potentially favouring individuals from developed countries and disadvantaging those from developing countries. The existence of these ethnic hierarchies is likely to contribute to delaying economic integration for those less well-matched to the demanded professional skills. Economic integration, often considered synonymous with workforce integration, is a process whereby new immigrants invest in human capital over time through gainful employment, achieving earning levels equivalent to the local population. Employers tend to favour new hires who received their education from British, American, French or German educational systems. Even those who arrive in Canada from countries with similar health care practices such as United Kingdom, United States and South Africa experience difficulties in adjusting to an unfamiliar sociocultural practice environment.

Language proficiency within a professional context is one of the most commonly identified employment barriers. For IENs, language difficulties associated with nurse patient relationships, interprofessional communication and social exclusion have been identified. Canadian official language proficiency, English or French, enhances the capacity to obtain information about schools, health care, social programs, housing, employment opportunities, unemployment benefits, and civic and legal rights in the new society. This knowledge contributes to successful employment since it
increases the utilization of their prior and current education and experiences, and is positively associated with higher incomes. Yet, the current literature does not adequately explain how language proficiency, ethnicity and pre-migration experiences have a combined influence on workplace integration of IENs.

**Study Aim and Research Questions**

Evidence suggests that IENs continue to experience systemic barriers to workforce integration, despite an increase in post migration services, preventing access to employment at the same level as native born nurses; research is needed in order to address the inherent challenges in each phase of the workplace integration process. Currently, there is limited research exploring how pre- and post-migration factors influence their ability to obtain employment equivalent to locally-educated registered nurses. This study addresses the apparent gap in the literature by exploring key characteristics of IENs, such as ethnicity and language proficiency, and their influence on the early stages of workforce integration in the Canadian health care system. The study aim was to explore IENs’ potential for workforce integration while enrolled in additional bridging education required for licensure as registered nurses (RNs). The following research questions were explored:

- How do the socio-economic characteristics of IENs’ country of origin influence workforce integration in Canada?
- What is the influence of IENs’ socio demographic characteristics such as age, gender and language ability on workforce integration in Canada?

**Methodology**

**Design and theoretical framework**

This descriptive research was conducted using a quantitative design by administering a survey questionnaire and an objective nursing-focused language test. A fundamental aspect of workforce integration consists of achieving and maintaining employment in the nursing profession during the initial phase post-migration to a host country. Thus, this study explores the economic perspectives associated with workplace integration. In order to understand the impact of an immigrant’s ethnicity on labour market integration, it is essential to focus on the interplay of institutional rules, resource distribution and socio political networks within a country. Using this ethnocentric approach, the objective was to determine if country of origin and related socio demographic characteristics also had a significant impact upon IEN workforce integration in a Canadian province.

**Sampling**

All registered nurses employed in Ontario, Canada must meet mandatory regulatory requirements including current practice experience and a bachelor’s degree in nursing approved by the College of Nurses of Ontario, Canada. A large number of IENs, although the exact numbers are unknown, are often required to undertake additional university-level bridging education. The province of Ontario offers a 20 month full time bridging education program from which
the study sample was drawn. The convenience, non-randomized sample of 94 participants (62%) from a potential pool of 150 students was recruited between 2015-2016.

**Data collection and ethical considerations**

A self-administered survey questionnaire pertaining to personal demographic background, prior education, current employment and language profiles was administered to develop participants’ profiles. In order to assess measurable English language proficiency, additional data were collected by administering a standardized English language test, the Canadian English Language Assessment for Nurses (CELBAN test), required for IENs to obtain licensure as registered nurses (RN) in Ontario, Canada. The objective test scores provided a comprehensive profile of each participant’s ability to read, speak, listen and write at required professional language benchmark levels for Canadian immigrants.

Ethical approval to conduct the study was obtained from the university’s Research Ethics Board. Participants were recruited on a volunteer basis. Informed consent was provided by each study participant.

**Data analyses**

Analyses of variance tests (ANOVA) were conducted using the SPSS software version 22. Since the variables consisted of both continuous and categorical data a general model was used. This procedure was used to compare differences in mean scores of key variables within the sample sub-groups. In the absence of standardized approaches to measuring workforce integration, for the purpose of this study the dependent variable consisted of the participant’s individual income and current employment status. Three sets of explanatory variables included demography, English language proficiency and country specific context. Human and social capital variables included resettlement, migration adaptation and adult learning attitudes using the *United Nations Development Programme* (UNDP 2014) human development classification system of different countries.

**Results**

**Participant demographic profile**

The majority of participants (85%) were married with at least one dependent and 15% were male. Most of the IENs had migrated to Canada within the previous five year period and were young adults in their early 30s. All had registered nurse credentials and possessed an average of five years of work experience from their home countries. The major source countries were South Asian and South East Asian regions. Sixty percent were currently employed in healthcare as practical nurses or nursing aides. Individual incomes ranged from zero to sixty thousand dollars (Canadian) annually. Participant demographic profiles are described Table 1.
Table 1: Demographic Profile of Participants

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Frequencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male 14 (15%) Female 80 (85%)</td>
</tr>
<tr>
<td>Age</td>
<td>Mean= 32.9 years SD=7.29 Range= 22-59 years</td>
</tr>
<tr>
<td>Period Residing in Canada</td>
<td>2-5 years= 72 (76%) 6-10 years = 15 (15%) 11-24 years = 7 (7%)</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Single 30 (32%) Married 56 (60%) Other 8 (8%)</td>
</tr>
<tr>
<td>Highest Education Level obtained outside of Canada</td>
<td>High school plus diploma 38 (40%) University Bachelor degree 47 (48%) Graduate Degree 5 (5%)</td>
</tr>
<tr>
<td>Current Canadian Employment (includes full and part time in health field)</td>
<td>Employed 57 (60%) Unemployed 37 (39%)</td>
</tr>
<tr>
<td>Average annual individual income</td>
<td>Less than 10,000 34 (37%) 10,000-40,000 51 (57%) 40,000 and above 15 (17%)</td>
</tr>
<tr>
<td>Comprehensive English Language Proficiency (CELBAN) Test: Passing benchmark levels for 3 or 4 tests; CLB level 9 listening; level 8 speaking &amp; reading, and level 7 writing</td>
<td>Pass (3 or 4 tests) 17 (18%) Fail 77 (81.9 %)</td>
</tr>
<tr>
<td>Original Source Countries *</td>
<td>Philippines 32 (34%) Nigeria 12 (12.8%) India 9 (9.6%) United States 7 (7.4%) China 2 (2.1%) Ukraine 2 (2.1%) United Kingdom 1 Korea 1 Sri Lanka 1 Others (not reported) 27 (28%)</td>
</tr>
<tr>
<td>Number of IENs from Different Levels of Source Countries Human Development Levels</td>
<td>High UNDP Countries 10 (20%) Medium UNDP Countries 48 (51%) Low or Developing UNDP Countries 35 (37 %)</td>
</tr>
</tbody>
</table>
**Sociocultural factors influencing workforce integration**

The results illustrated that IEN workforce integration is influenced by personal and professional experiences prior to and during the early post-migration period. Three key factors were identified as having a significant influence on workplace integration: English language proficiency, pre-migration experiences within country of origin and post-migration social networks. The significant relationships between the key variables are displayed Table 2.

**Table 2: IEN Workforce Integration and Key Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>ANOVA</th>
<th>Significance Level</th>
</tr>
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<tbody>
<tr>
<td>English fluency (objective and perceived)</td>
<td>F(3,89)=7.3</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>English as first language</td>
<td>F(1,91)=21.4</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>Formal education in English since grade one or earlier</td>
<td>F(1,91)=14</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>All education in English</td>
<td>F(1,91)=14</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>Source Country Quality of educational system</td>
<td>F(1,73)=17.3</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>Source Country Net migration rate</td>
<td>F(2,89)=11.7</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>Source Country International integration/internet user</td>
<td>F(2,89)=5.5</td>
<td>p= 0.006</td>
</tr>
<tr>
<td>Source Country Inequality</td>
<td>F(2,87)=5.3</td>
<td>p=0.007</td>
</tr>
<tr>
<td>Social network of friends with the same ethnicity</td>
<td>F(4,83)=2.46</td>
<td>p= 0.052</td>
</tr>
<tr>
<td>Social network of friends from the same country of origin</td>
<td>F(4,85)=2.8</td>
<td>p= 0.03</td>
</tr>
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</table>

**Human Development Index (HDI):** A composite index measuring average achievement in three basic dimensions of human development—a long and healthy life, knowledge and a decent standard of living. The four development indices were included:

1. Inequality-adjusted HDI- HDI value adjusted for inequalities in the 3 basic dimensions of HD such as health/life expectancy, education, and income (UNDP 2014, p.157)
2. Educational system quality presents standard education indicators on education quality including literacy rate, math-reading-science performance, enrolment ratio, dropout rate, trained teacher rate, pupils- teachers ratio, or education expenditure (UNDP 2014, p. 157)
3. Social competencies contain 3 components of employment and related vulnerabilities, social protection, and suicide rates (UNDP 2014, p. 158)
4. International integration includes indicators of globalization such as (1) remoteness of world markets and international trade/capital flows (investment, remittances), (2) human mobility (net migration rate), tourists, and (3) international communication (internet users, international phone calls) (UNDP 2014, p. 158)
English language proficiency

Comprehensive testing of English language proficiency measuring reading, writing, listening and speaking revealed that the majority of the IENs demonstrated difficulty meeting the benchmarks required for licensure in Ontario. The majority of the IENs appeared to have the greatest difficulty demonstrating a high level of professional speaking and writing skills. The composite CELBAN test scores were not found to be a significant factor on workforce integration.

Further analyses revealed that English language ability had a more complex impact than previously recognized. The timing and type of language learning appeared to have a significant influence on language proficiency and subsequently on IEN workplace integration. The results showed that language learning had the greatest benefit if it occurred prior to emigration. Therefore, IENs who spoke English as their first language or who spoke fluent English and had obtained all their prior education in English in their home country were more likely to have higher language proficiency and be employed. These relationships were stronger for the younger IENs (early 20s to 30s). Simply taking remedial English courses post-migration was not found to have a significant impact.

Country of origin human development characteristics

The IENs were a multicultural group of immigrants. The major source countries included the Philippines (36%), Nigeria (13%) and India (11%). A further 26% who responded included other regions in Eastern Europe and the Middle East. Examining the overall human development indices of each source country revealed that five of the country characteristics had significant influence on workplace integration in Canada.

IENs emigrating from countries ranked by UNDP (2014) as having a high quality educational system and balanced net migration rates were found to have significantly higher levels of workplace integration. Similarly, higher levels of integration were associated with those countries exhibiting lower levels of social inequality, largely attributed to gender and race issues. Higher levels of international integration in the form of higher rates of communication with other countries through internet and telecommunication also ranked as important characteristics of developing countries. Although less statistically significant, source countries with lower unemployment rates were also associated with higher IEN workplace integration in the host country.

Post-migration social networks

Social capital in the form of social networks established in Canada was also found to shape IEN workplace integration. Social networks formed within the host country with family, friends and in workplaces have been previously shown to have a positive effect on economic integration. Personal and professional social networks, especially for those who have resided in Canada less than five years, are associated with employment and higher income levels. These networks consisted of having friends from the same country of origin with the same first language and ethnicity.
Discussion

IENs in Canada continue to experience difficulties with workplace integration. These results suggest that key socio-demographic characteristics and post-migration activities collectively influence this integration. The high degree of influence of key pre-migration indicators on IEN workplace integration of internationally educated professionals has not been previously reported in the literature. This study illustrates the multicultural characteristics of IENs while providing a nuanced view of the complex interactions between individual demographic and contextual factors contributing to health force employment. Failure by professional licensure and employment organizations to recognize their impact may impede workplace integration and lead to dissatisfaction with the system, deskilling and economic uncertainties for IENs.25

Health profession regulatory practices routinely rely on an applicant’s source country as a valid indicator of individuals’ skill and knowledge needed for the host country workforce; the assumption being that if immigrants possess equivalent education and experience, then they are considered to be more employment ready. This regulatory strategy should not be taken at face value. Simply making the assumption that a country has the same opportunities as host country standards may misrepresent the actual abilities of immigrants. The difficult labour market transition of new immigrants from developing countries reported by a number of developed host countries suggests that regulatory practices and policies need further examination.26 Country or region of origin has consistently been cited as influencing economic integration.27 But without an accurate understanding of source country characteristics or the impact of life experiences prior to emigration, it is difficult to predict economic and social integration based on a single indicator.22

Instead of analyzing country of origin as a single indicator or each country characteristic separately, we analyzed a group of potentially explanatory contextual variables previously identified by the United Nations Development Programme (2104).24 The UNDP report adopts a human development perspective arguing that well-being of populations within countries is affected by individual abilities and socio-political contexts. A better understanding of how population vulnerability and resilience to overcome associated challenges, from a multidimensional human development perspective, provided deeper analyses of the key factors and policies that explain why some individuals, communities or countries are more resilient to adverse events and respond better to them.24p16 Utilizing these data which report on a range of economically developed and developing countries provided a method to categorize source countries in more depth. Research examining a wider range of countries than those reported in this study and with other health professions would provide further insight into country effects on integration.

This study provided empirical evidence that immigrant social capital, acquired in their source country, influences individuals’ ability to adapt to social challenges for a much longer period than previously recognized. Internationally
educated professionals from source countries which promote social equality among various groups, maintain active global connectedness, provide high quality education to its citizens, and provide opportunities for English language development as a formal educational component in addition to native languages report greater economic success in developed host countries. For example, migrants from developing countries with less global connectedness and have had less exposure and knowledge of highly advanced, innovative health practices and will therefore be disadvantaged. These non-material assets have a greater benefit than previously recognized in migration literature. These individuals, with the opposite experiences will have more skills and knowledge and thus be more capable of building on pre-existing and new economic and social capital following migration.

This study also illustrated the significant influence between demographic characteristics and settlement behaviours. Age of migration, language competency and social networks contributed to economic integration. The age upon arrival in a host country, in combination with various other factors such as length of residency and country of birth, has previously been shown to contribute to social integration.28 In Canada, younger adult immigrants are more likely to participate in the labour market and earn higher salaries than older immigrants.27 Immigrants who migrated to Australia at a younger age had higher levels of English proficiency, higher wages and greater opportunities for promotion.29 In this study, younger IENs who received their prior education in English in their home country were more successful with integration. Being a younger immigrant is not sufficient for success but also depends on having a high level of pre-existing language skill.

English language proficiency of IENs has been consistently cited in the labour market integration literature.21, 30 Poor literacy scores reflect lower cognitive skills, including speaking and reading in English, numeracy and problem solving skills, negatively impacting employment.8 In this study, IENs with higher levels of English proficiency as measured by standardized language tests instead of self-reports and had emigrated from English speaking countries or at least had their education in English reported higher levels of workplace integration. This suggests that language proficiency has a strong influence on the type of job that the immigrant will obtain in a host country supporting the conclusion that in the UK nurses without adequate English language skills and pre-United Kingdom registration may be at risk of under-employment.3

The ability to demonstrate socio-pragmatic language skills within the nursing practice context has been recognized as a major challenge for IENs.33,34 Standardized language test scores produced insignificant results suggesting that language proficiency is a more complex skill requirement for immigrants working in specialized occupations. Test scores alone may not provide a sufficiently comprehensive assessment of an individual’s language ability to meet employment standards in professional fields. The technical components of the English language, that is, the use of proper grammar or appropriate vocabularies, has
been shown to be only one important aspect of effective professional.\textsuperscript{14,17,31,32}

Another contribution of this study is the conceptualization of language skill as being more than technical linguistics. Additional contextual factors included: 1) English as first or second language; 2) level of self-perceived English fluency; 3) receiving all prior formal education in English, and 4) participation in informal or social opportunities to speak English in their home countries. This suggests that a certain level of ‘sophisticated’ language proficiency which has developed over a lengthy period and obtained prior to emigration through both formal education and informal interactions in English is desirable. Consistency between self-perceived and the actual level of language proficiency is also essential to developing additional language skills in the host country. If a dissonance occurs, the individual is less likely to engage in further language development.\textsuperscript{14,15}

Social integration has been defined as the inclusion of new immigrants within the host culture by establishing relationships with other individuals through the conscious and motivated interaction and cooperation of individuals and groups.\textsuperscript{35,36} Having social networks, in particular contact with friends and coworkers, provides a conduit of information about job opportunities, financial issues, etc., facilitating economic success and thereby enhancing workplace integration.\textsuperscript{8} Previous research indicated that the nature of the social networks, that is, gender composition, internal diversity and frequency of contact, can either positively or negatively influence economic integration of IENs.\textsuperscript{37} These results suggest that it is the interactions between members of the social networks of the same ethnicity and country of origin and not simply having membership within the same ethnic group that has a positive effect on economic integration.

**Policy Implications**

Adaptation to local health practice standards required in the host country poses a number of significant challenges potentially leading to unemployment and deskill\textsuperscript{38}ing. These challenges, especially those encountered during the initial stages of settlement, often result in the lack of successful workplace integration. Facilitating workforce adaptation has implications for policy makers, regulators and employers, with the need to be strategically responsive and fair in their actions.\textsuperscript{28} Credential recognition policies which promote a good match between individual qualifications and experience with the needed skills in host countries.\textsuperscript{2} Cultural adaptation is a multi-stage process requiring the involvement of the individual immigrant and host country service providers.\textsuperscript{39} The importance of providing adaptation programs to improve retention of IENs to minimize struggles during the settlement period needs recognition.\textsuperscript{37} If prior education and work experience effectively prepare IENs to adapt to the socio-cultural demands of the host country, there is less need for adaptation. Regulators cannot simply rely on prior credentials and experience as sole indicators of employment integration. Consideration of ethnic characteristics, such as country of origin and language proficiency, in immigration policy decisions and health workforce planning needs to be reconsidered in light of the implications for workforce
integration of immigrants from developed countries, as against developing.

Effective programs for IENs, and most likely other health professions, which address skill gaps, multi-dimensional discrimination and promoting career progression are especially needed if there are marked differences between country of origin and host country in professional practice standards and expectations. Such programs need to include profession specific language and technical skill development, mentoring, and potentially, economic support. Employers need to be cognizant of the comprehensive influence of IENs’ pre-migration skills and experiences upon their ability to integrate into professional employment. Employers could set up both formal and informal professional and social networks to facilitate access to work-related information and support.

This study has highlighted a current gap in regulatory practices. Although official language assessment is a common regulatory practice, improved methods for assessing profession specific skills and the remediation of gaps are recommended. The timing of migration, that is, age of adult immigrants and its associated impact on English language development is critical to a range of important policy-relevant outcomes. If the age at arrival and education are so critical for immigrants’ integration, a system that favors younger IENs with prior education in English may receive preferential treatment. However, in order to avoid exclusion of older immigrants, adequate educational and social support systems need to be available to promote successful English language development. Any integration strategies must be multifaceted in order to address the diverse workplace integration needs of IENs.

Cross border movement of all types of health professionals will continue to address labour shortages. Under-utilization of valuable skills will result if more effort is not directed towards promoting successful integration of IENs. Systematic workforce planning which focuses on accurate assessments of professional skills and requisite learning needs post-migration is essential for immigrant economic integration as well as benefitting host countries. Increased attention to the effect of source country economic and social factors upon new immigrants’ ability to achieve economic integration is recommended. Research examining the effectiveness of credential recognition processes and employment integration programs, and identifying best practices is needed to better manage the dynamic global flow of health human resources.

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