



Creating a Dual Degree: Nursing Education Goes Global

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Abstract

A global health human resource crisis has intensified the need for innovative education programs to maximize the supply of nurses worldwide. In response to the current and anticipated shortage of nurses globally, a novel collaborative undergraduate nursing program was developed at the University of New Brunswick in Fredericton, NB, and Manipal Academy of Higher Education in Karnataka, India. The resulting dual degree model is shaped by the contexts of the participating countries and current activities related to the international recruitment and migration of registered nurses. This partnership will increase program capacity and the potential number of graduates and will ease the immigration of internationally educated nurses.

Introduction

Organizational change, health human workforce planning and workforce migration are familiar concepts within nursing, often accompanied by well-defined processes that are contextually based and responsive to local organizational needs. Educational models grounded in the art and science of nursing and underpinned by evidence-based practice have been widely accepted (Aglen 2016; Spencer et al. 2012). However, as the world has been shifting, nursing education and

practice have needed to acknowledge the impact of global communications and the disruption of digitization more rapidly in healthcare and service delivery (Sounderajah et al. 2021; Topol 2019). One of the most significant challenges facing nursing leadership today is the shift from a culture of hierarchical decisions and directives that determined education and practice to more transformational and relational behaviours where leaders are influencers, not directors of change (TEDx Talks 2018; Weberg and Davidson 2021). It is incumbent on nurse educators to remain current with technological advances and prepare graduates to work within a digital health ecosystem. Within Canada, the use of distributed models for health professionals' education is limited and the predominant applications of technology are focused on simulation (CASN 2021; Meagher et al. 2022). As healthcare is being redefined globally, academia will continue to be challenged to remain relevant in preparing future nursing professionals (Khayat 2023).

The global COVID-19 pandemic has rapidly transformed nursing education. Educators and clinicians have pivoted quickly to find new methods of content sharing; skill acquisition; and safe, experiential learning opportunities within practice settings. As pandemic restrictions and isolation requirements subside, there is a challenge to determine whether to sustain pandemic-driven changes or return to the previous status quo. Consistent with the changing landscape of healthcare globally, a relational orientation shifts the focus to contextual factors not previously considered in examining the development of relationships (Doane and Varcoe 2007). A relational orientation is foundational to delivering high-quality nursing care and achieving positive patient outcomes (Doane and Varcoe 2021); it “goes beyond the interpersonal level (what happens between and among individuals) and includes an examination of the intrapersonal, interpersonal, and contextual dimensions” of relationships (Doane and Varcoe 2021: 2).

In this paper, we describe the convergence of leadership and evidence with a relational orientation to create an innovative dual degree nursing model appropriate for a global workforce. The dual degree model was developed collaboratively by the University of New Brunswick (UNB) in Fredericton, NB, and Manipal Academy of Higher Education (MAHE) in Karnataka, India. The model is based on mutual respect, social justice and ethical behaviour, and has been shaped by the contexts of the participating countries and current activities related to the international recruitment and migration of registered nurses (RNs).

Background

The development of this novel partnership has arisen mainly due to the current and anticipated shortage of nurses, locally and globally. The post-pandemic emergence of a global health human resource crisis has intensified the need for innovative training programs to maximize the supply of nurses. Partnerships are urgently

needed to increase program capacity and graduates, ease the immigration of internationally educated nurses (IENs) and address the nursing workforce needs in New Brunswick (NB).

Global Health Human Workforce Crisis

The World Health Organization (WHO) predicts a global need of 36 million RNs by 2030 yet anticipates a shortage of 13 million (WHO 2020). Canada is not exempt from these projections, given a vacancy rate of 22,641 RNs in 2020–2021 (CASN 2022). While the country has 137 institutions offering pre-licensure nursing programs, a worldwide shortage of nurse academics is also a contributing factor. Often overlooked, the workforce needed to educate future nurses is also being challenged by shortages (Statistics Canada 2023). In 2020, the Canadian Association of Schools of Nursing (CASN) reported 10,915 faculty members, of which only 29% were tenured/on tenure track, 50% were over the age of 50 years and 20% were over the age of 60 years (CASN 2022). Overall, Canada has been challenged by an aging nurse educator workforce with a current need for more than 500 full-time nursing faculty to deliver primary nursing education (CASN 2022: 15). The pandemic also led to a decline in RNs entering graduate studies. In 2022, 839 RNs were admitted to a master's program, a reduction of 17.9% from 2019–2020, while the number of graduating RNs in 2022 was slightly reduced by 2.7% ($n = 621$) (CASN 2022). Declining numbers from graduate programs will undoubtedly create a challenge in replacing nursing faculty vacancies. Since it is unlikely that the world will fulfill the number of RN vacancies by 2030, a sufficient future workforce depends on reimagining how nursing education is delivered and the nursing practice in the context of evolving healthcare environments.

The “Quality Education” sustainable development goal (SDG) calls for countries to collaborate on revitalizing and renewing education pathways grounded in equity and inclusion principles (United Nations 2020). As a country, India has been leading in achieving several of the United Nations’ 17 SDGs. In the Canadian context, UNB’s Faculty of Nursing focuses on real-world problems relevant to local communities. It also addresses global concerns integral to the social determinants of health identified by the SDGs (United Nations 2020). While neither India nor Canada has identified health education as a specific goal, nursing has a significant role in developing human capacity for the knowledge economy by effectively providing access to education globally. It is well known that intellectual capital is lost when barriers exist to accessing education.

Recruitment of IENs

The recruitment of IENs is not a new phenomenon for many provinces in Canada; NB, located in the eastern region of the country, has not historically engaged in active recruitment overseas (Turcotte and Savage 2020). A review of

the last five years revealed 10 or fewer applications for registration by IENs before 2020. The most recent statistics identified three countries that comprised the majority of IENs applying for registration in NB, all demonstrating a significant shift from 2018 to 2022: India from two to 142, the Philippines from six to 167 and Nigeria from one to 49 (NANB 2018, 2022). Aging demographic of the nursing workforce and the pandemic's negative impact on nurse retention outpaced the local supply of new graduates that has historically met the province's need for RNs.

When collaborative discussions ensued in July 2021, the process for IENs to practise in Canada involved four separate stages as outlined in Appendix 1, available online at [longwoods.com/content/27291](https://www.longwoods.com/content/27291). For many IENs, the licensure process unfolds once they have arrived in Canada. Given the timeline and costs, many provinces support these nurses to obtain employment during the immigration process. This employment results in nurses working in unregulated roles, often as personal care workers (Harun and Walton-Roberts 2022). Deskilling of IENs has become common. Since 2016, within the Canadian healthcare sector, twice as many internationally educated workers held university degrees – predominantly a Bachelor of Nursing degree (69%) – as compared with non-immigrants (Turcotte and Savage 2020). However, the proportion of IENs and individuals designated as a visible minority working as RNs did not differ from other occupations (Turcotte and Savage 2020).

Given the present Canadian health human workforce planning crisis, provincial jurisdictions have been forced to reconsider the time and costs associated with IEN licensure. Within Canada, the provinces of Ontario (CNO 2022), British Columbia (Robitaille 2023) and Nova Scotia (Nova Scotia College of Nursing n.d.) have passed legislation that shortens the time to licensed nursing practice.

The development of new streamlined pathways is occurring with the support of and in consultation with stakeholders (NANB 2023). It is important to note that these changes have been imposed by provincial legislation rather than in collaboration with the provincial regulatory agencies or professional nursing associations. While there is no consistent provincial approach, it is anticipated that licensure for the first graduating class of the new dual degree program will differ from the existing processes.

Building the Innovation Network

India has 720 post-secondary institutions offering a nursing program. Eleven per cent are government-operated and 89% are private with an annual intake of 116,075 undergraduate students (BScN) and 14,488 master's level students (INC 2022). UNB has an existing relationship with MAHE and has participated in student exchange initiatives as MAHE offers all programs in English. The

UNB International Office approached the Faculty of Nursing to consider joint initiatives with the Manipal College of Nursing (MCON). Consistent with the academic plan for global health, creating an international educational pathway could safeguard the scope of practice of RNs coming to NB by eliminating the practice of deskilling (UNB Faculty of Nursing Academic Plan 2021).

In addition, a partnership could be developed to realize an increased number of MCON nursing program graduates immigrating to NB without jeopardizing the complement expected to enter India's nursing workforce.

Nursing Education in India

As a recognized Institute of Eminence in India, MAHE works with a strategic plan based upon five pillars (https://www.studyinindia.gov.in/institute_of_eminence). One of these pillars is Expanding Reach and Internationalization, which is intended to encourage the development of joint academic programs with international universities that reflect international education standards. MCON, a constituent unit of MAHE, is one of the leading nursing institutions in the country preparing competent nurses who can be employed globally. In 2023, the Education World Rankings reported that MAHE leads the top ten rankings for privately funded colleges of nursing in India and has consistently ranked fourth across all programs in the country (EducationWorld 2023).

The National Education Policy (NEP) 2020 of India aims to provide quality education and lifelong learning opportunities for all, leading to full and productive employment and decent work (Ministry of Human Resources Development 2020). NEP 2020 further emphasizes providing education on par with international standards. The NEP 2020 targets to take the Indian education system to the next level and make it globally relevant and competitive. MAHE has integrated the NEP 2020 from the academic year 2021–2022 to position the institution as a world leader in education. The NEP identifies a move toward a more holistic and values-based approach with increased emphasis on multidisciplinary, interdisciplinary and cross-disciplinary education, creating new possibilities for life-long learning. This response to global challenges “will empower learners to become aware of and understand global issues and to become active promoters of more peaceful, tolerant, inclusive, secure, and sustainable societies” (Ministry of Human Resources Development 2020: 37). Internationalization will increase the number of international students studying in India and provide greater mobility to those who wish to study and travel abroad. Given the growing population in India, the role of nursing in healthcare has evolved with advanced practice roles recognized, such as nurse practitioners. The University Grant Commission of India requires graduate education for all university faculty with preference for the doctoral level. Similar to Canada, many masters'-prepared nursing faculty are pursuing a doctoral

degree (Hayter et al. 2019). The MCON complement has achieved 39% doctoral-prepared faculty (MCON n.d.).

MAHE has adequate resources in terms of academic and clinical facilities with highly qualified faculty members to support the additional seats in the dual degree program. The current curriculum delivery was redesigned and approved in 2023 to model the NEP 2020. The new curriculum utilizes innovative, evidence-based teaching strategies.

Creating a dual degree in nursing was a new initiative for MAHE and the first of its kind in India. The initial discussion phases were challenging for MCON and UNB faculty to conceptualize as the curricula had very different program designs and structures. Each curriculum was designed based on entry-level competencies set out by the respective regulatory bodies, the Indian Nursing Council (INC) and Nurses Association of New Brunswick (NANB). Teaching approaches were adapted to the local context and diversity of communities served, while considering the healthcare workplace culture, norms and standards of practice as identified by accreditation standards (e.g., Accreditation Canada). Individuals completing a dual degree program will be simultaneously granted a nursing degree from two universities. This is a very popular strategy across Europe and now has secured a place in India. MCON faculty expressed that these programs are necessary for fast-paced and competitive times. The dual degree will provide a platform for the nursing students to learn the healthcare practices in Canada, as well as in India, and provide them with the capabilities to work in either country.

UNB nursing faculty believed that collaborating internationally would be an effective approach to securing a regular supply of IENs and decided to explore the opportunity with MAHE. Further to a series of online meetings and extensive discussion of a possible pathway, UNB and MAHE agreed upon a joint education program for Indian nursing students to be educated in India and prepared for employment in NB upon graduation. MAHE nursing faculty subsequently sought approval from the Indian Nursing Council (INC) for a new dual degree baccalaureate-nursing program.

Access to Nursing Education: A Relational View of Leadership

The UNB Faculty of Nursing has a long history of interprovincial collaboration to offer a nursing degree program. Transforming the model to embrace global education partnerships reflects the faculty's growth agenda while supporting provincial nurse workforce planning. An international collaboration would require a willingness from regulators to consider global licensure and an acknowledgment from healthcare employers that such education can provide a sustainable recruitment opportunity. This approach also reduces the burden on the local health

network to provide additional clinical practicums within an already overtaxed system. “Relational leadership focuses explicit attention on the interplay of intrapersonal, interpersonal, and contextual elements [e.g., sociopolitical, historical, economic, linguistic and physical and] critically considers how those elements are converging; and responds and works within the convergence to promote positive outcomes” (Doane and Varcoe 2021: 410). Research indicates that leadership focused on people and relationships results in positive outcomes (Doane and Varcoe 2021).

The deans of nursing from MAHE and UNB shared a common interest in international migration, although from differing perspectives. Outward migration was common for MAHE nursing graduates, yet Canada was not a destination of choice. For UNB, it was essential to provide a safe, welcoming environment in NB while ensuring the ability of graduates to be licensed to work in India if they returned home. It was agreed that a new collaborative approach would support the delivery and successful completion of the degree program. The program emphasizes on preparing graduates for the culture and complexities of the Canadian healthcare system, supporting their success not only in the National Council Licensure Examination (NCLEX) but for the Canadian nursing role. Graduates of the dual degree program are supported to complete the NCLEX before migration, thus respecting the knowledge and skills of graduates and eliminating deskilling of RNs arriving in NB. The resulting collaborative program was a Manipal–UNB pathway that would result in the attainment of a dual degree.

Working with the regulator – the NANB – was essential to establishing a process for graduates from a Manipal–UNB pathway to be licensed to practise in NB as graduates of UNB. Given their existing role in licensing IENs, it was important to engage the NANB in creating a solution to streamline the process for graduates to be practice-ready. Discussions were held concerning the ability of students to write the NCLEX-RN in India before moving to Canada. NANB agreed with the concept and acknowledged the efficacy of graduates being prepared for licensure upon entry to Canada and NB. NANB agreed to work with UNB to pursue a partnership for a pathway that could eliminate the need for the existing IEN re-education process.

With the regulator’s agreement to collaborate, UNB reached out to the local health region as the key employer for MAHE graduates. Engaging with the health region was much broader than securing offers of employment. Becoming a destination of choice for IENs is predicated on the community’s preparedness to welcome nurses and their families within the health region and the province. Planning acculturation (Pressley et al. 2022) as part of the pathway included determining the number

of new graduates that different regions of the province could accommodate, the time frame for immigration and a willingness to partner on creating a global orientation pathway to support new graduates from MAHE throughout their education program. Initiatives to learn, understand and adapt to the Canadian healthcare system extended an opportunity to solidify relationships and create collegiality among students in both countries. All aspects of the work conducted internally and across borders maintained this tripartite collaboration.

Creating an International Pathway

To achieve a pathway that demonstrated mutual respect for knowledge, curricula and scope of practice, a team of faculty members from MAHE and UNB, the regulators for registered nursing education in India (INC) and in NB (NANB) and the potential employer hiring graduates upon arrival in the province worked together to envision and design a MAHE–UNB pathway for nursing education.

From a relational perspective, it is understood that the influence of both formal and informal leaders is shaped by the specific contexts within which they are working, the people with whom they work, and the relationships among them. (Doane and Varcoe 2021: 426)

While it was recognized that formal leaders had significant roles and influence in this project, team members within each organization were positioned to make significant contributions to support and enhance the project outcomes. Each member of the team remained focused on the three levels of inquiry (intrapersonal, interpersonal and contextual) while moving through the processes of internal analysis of the curricula, curricular comparisons of the nursing program's abilities and outcomes and the identification and development of modules/courses needed for the dual degree program.

During this work, we were attuned to our values and beliefs and the impact of how these impressions and actions influence others engaged in the process. It was important to consciously consider intrapersonal dynamics while expanding attention to others and purposefully using influence to support each other in working more effectively in identifying and addressing gaps and responding to these challenges (Doane and Varcoe 2021). It was acknowledged that differences would exist and rather than trying to adapt to one perspective, the divergence of methods and evidence to achieve a stated outcome was respected. By paying attention to values and making them visible, the focus remained on the key concerns of creating a dual degree program, equity and social justice.

Applying to the dual degree program

The INC granted MCON 25 supernumerary seats to begin the dual degree. This was a historic decision as the maximum seat capacity for nursing programs in India is 100. The only restriction was that students eligible to enter this program should be from MAHE and not UNB. The 25 supernumerary seats became a student cohort added to the MAHE BScN program. The admission to the 25 seats is determined by the regular MAHE admissions process required for the BScN degree as per the regulations of the INC. These 25 students will take additional modules and courses as per the joint program to meet the Canadian standards and qualify for licensure in Canada. Given that these seats are supernumerary, MAHE will maintain the same number of nursing graduates; thus their contribution to the Indian workforce remains constant and not jeopardized by this program.

Designing the program

One of the greatest strengths and joys of this collaborative endeavour was the commitment of the faculty to bring this novel idea to fruition. Over the course of 10 months, lead faculty from both schools worked in partnership through Microsoft Team meetings and e-mail correspondence to facilitate the in-depth curricular analysis. In June 2022, a UNB visit to MAHE provided the opportunity for face-to-face meetings and a joint effort to create supplementary modules and courses for students to achieve all learning outcomes from both schools. Despite differences of opinion and cultural backgrounds, the team was able to collaborate effectively and work cohesively to determine the course content for the program. Members of each faculty were accountable for their assigned tasks and worked diligently, sharing details of how curricular concepts are actualized and the effective teaching and learning strategies implemented in each university as foundational in developing the final program.

The undergraduate nursing curriculum is standardized nationally in India. The comprehensive course planning, syllabi and course-specific learning outcomes sanctioned by the INC facilitated the process of comparing the MCON nursing preparation with that of UNB nursing. The UNB nursing curriculum is structured through an abilities-based paradigm, with program outcomes, year outcomes and course outcomes mapped for each course blueprint (Thompson et al. 2013). The abilities-based curriculum and learning outcomes are founded on NANB's Entry-Level Competencies (ELCs) for the Practice of Registered Nurses in New Brunswick (NANB 2020a). Therefore, in the review process, the curricula were compared with the lens of the UNB curriculum and the NANB ELCs. Three UNB nursing faculty members led the curriculum comparison process. The comparison process is outlined in Appendix 2, available online at longwoods.com/content/27291.

Program delivery

The MAHE–UNB dual degree nursing program will only be offered to the 25 supernumerary students who must also register at UNB as full-time students upon acceptance by MCON. Students admitted to the MAHE–UNB dual degree nursing program must successfully complete all required courses, following the MAHE BScN program. The dual degree students will also be required to take the supplemental modules in addition to the MCON curriculum to meet the UNB Bachelor of Nursing (BN) program competency requirements for the dual degree. These expectations are outlined in a course equivalency table provided to students. All course requirements are mapped, and equivalency credits are identified. However, they will not impact or adjust any requirements regarding how MAHE instructs and grades courses for the MCON degree, which remains within MAHE’s sole authority and control.

The UNB Faculty of Nursing uses a remote learning delivery method referred to as “learn where you live” (LWYL). The method uses advanced technologies to support course delivery – including Microsoft Teams, virtual reality and simulation – thus allowing students to remain in their home communities; essentially, this method takes the classroom to the students. UNB faculty will use a blended approach of LWYL with synchronous lectures for the three modules and personalized content delivery for the four courses. The familiarity of the students in using technology for experiential learning opportunities will be assessed by faculty with student input through course-related student opinion surveys. The major benefits of the LWYL model are that students remain in familiar surroundings with their support system of family and community available, there is no additional cost in tuition for the MAHE nursing program and there is no cost for NCLEX preparation and mentorship.

The Government of New Brunswick provided grant funding to support the MAHE-UNB dual degree nursing program for 10 years. A summer institute program was also funded for two years beginning in 2023 to provide MAHE students with a cultural and clinical preceptorship to support an experiential learning opportunity that would contribute to including relevant content for integration in the dual degree program to best prepare students for the year three preceptorship experience in NB beginning in 2025. Although not part of the dual degree program, these students are fully funded with the exception of their airfare to Canada. The UNB International Office and the Office of the Canadian High Commissioner to India supported students in obtaining visas and occupational health assessments required for their entry to Canada.

Program evaluation

The MAHE–UNB dual degree nursing program will be continuously assessed, and student learning will be evaluated through both formative and summative assessments within the delivered courses and modules. The efficacy of the joint curriculum will also be assessed by students' success rates on the NCLEX-RN. The innovative nature of the dual degree model will be evaluated for best practices, inter-country collaboration, lessons learned and global transferability of the model. Retention upon migrating to NB will be assessed including the acculturation processes followed and the preparedness of the healthcare system and the community to welcome newcomers. The Indigenous program – Nutsihpiluwewicik – in the Faculty of Nursing, will assist in both the course content of the module and the onboarding aspects of Indigenous ways of knowing particular to the NB context. It is unknown what percentage of attrition may occur throughout the program, how many students will write the NCLEX-RN and the number who will migrate to NB. These data will be tracked across all years of the program delivery. There are no conditions requiring graduates to seek employment in NB, and the health region has not placed any expectations on employment services. For all IENs, it is incumbent on the province and the employer to mitigate potential barriers to retention. The tripartite model of NB is a mutual investment by two countries to build capacity in the nursing profession. This is reinforced by anticipating and mitigating barriers to migration, life in a new community and a supportive environment for nursing practice. Lessons learned in creating this pathway are transferable to other IENs within the province. Data on outward migration of the dual degree program graduates could help to inform to what extent Canada may be a country of choice.

This program has been designed to support the efficient delivery of and access to quality nursing education across international borders, reduce barriers for MAHE graduates to apply directly to NANB for licensure, significantly reduce the financial burden by removing screening processes and expedite nurse recruitment by the NB health regions. Formative and summative evaluation will address the achievement of these goals, particularly the direct impact on the nursing workforce in NB.

Understanding Contextual Influences

The UNB nursing concepts and learning outcomes not addressed through MAHE courses pointed essentially to contextual differences in healthcare delivery and services between our countries and cultures, including socio-political contexts and an emphasis on developing clinical judgement in Canadian nursing. UNB nursing has also established a fundamental approach to reconciliation and reconciliation (UNB Faculty of Nursing Academic Plan 2021); therefore, the content

supporting the historical implications of health for Indigenous Peoples in Canada is also essential for nursing graduates coming to practise in NB.

Why a Dual Degree is Meaningful

Canada has been identified as a country that depends on international recruitment because of many years of limited investment and strategic action to sustain the nursing workforce despite more than a decade of evidence leading to repeated warnings of an aging workforce (Hoag 2008). The pandemic exacerbated the healthcare system's challenges, pushing those nurses who might otherwise have remained in the workforce longer, to seek earlier retirement. Similar to other developed countries, recruitment has targeted low- to middle-income countries using attractive incentives with little consideration for the healthcare of the source country's population (McQuillan 2022).

Throughout the development of our relationships and program design, UNB remained firm that the goal of the partnership with MAHE was not a recruitment strategy to entice nurses from their hospitals to the NB workforce; rather, the intent was to invest in new and innovative models to educate and best prepare nursing graduates to work within a global workforce. The significance of the dual degree is twofold: (1) shared goals of a tripartite inter-country model of educator-regulator-employer for the nursing profession and (2) mutual respect for the knowledge economy of both countries in support of curricular design. Faculty members working together remotely and collaboratively made recommendations for the program design on an ongoing basis. The site visit solidified the growing relationships among faculty and the opportunity to meet in person optimized the social and intellectual capital evolving within the team and our respective faculties. As outlined previously, creating a sense of belonging by strategically positioning inter-country student engagements remotely and in person is integral to the acculturation process before the graduates arrive in NB. Recruitment is but one aspect of the process. Retention within the host country is highly dependent on that sense of belonging. As relationships developed, MAHE and UNB nursing faculty created experiential learning opportunities for student exchange between programs. Within the curriculum, an onsite clinical preceptorship was included as an optional offering to begin integration into the NB healthcare system prior to employment.

The LWYL delivery method used for the dual degree program allows students to be remotely present and continuously connected to UNB while at MAHE. In addition to the preceptorship, opportunities for experiential learning to create cultural awareness and understanding of healthcare in both countries will be sought to further build a shared appreciation for inter-country nursing practices and professionalism. Integrating these strategies across the dual degree program

may take time. Given our tripartite partnership, there is a shared interest in creating an environment where the retention of nurses who migrate to a new country is a provincial responsibility. NB will be viewed as a place where the graduates of our dual degree program feel welcomed within the community, and the nursing workforce acknowledges that while the context of practice may differ among countries, the graduates of the dual degree bring knowledge and experiences of learning to integrate the healthcare systems in both India and Canada. Our approach is strategic and maps a long-term sustainability plan that is transferable when education is viewed as the foundation for building a global nursing workforce. It is not a plan that fits those countries in a workforce crisis that view a one-time, short-term recruitment initiative to address the immediate shortages within the nursing workforce.

Implementing the Program

Efforts to implement the dual degree program began simultaneously as operational units at UNB worked through administrative details related to establishing a formal agreement, registering students and cataloguing courses. Relational practice informed the actions to prepare for the delivery of the teaching modules for the initial cohort of students. In relational practice, there is an assumption that people, situations, contexts, environments and processes are interwoven and shape each other (Doane and Varcoe 2005). Faculty at both institutions met via Microsoft Teams, and there was also an opportunity for the first cohort of students to introduce themselves and to meet UNB faculty. Cultural norms, nuances of English and a constellation of other factors, including formal and respectful relations with educators, were considered before and during course delivery. Liaison with MCON leadership was instrumentally helpful for planning class times to align with classroom and clinical experiences. Course instruction was offered using alternative delivery methods of e-mails and Microsoft Teams introduced during the pandemic. The learning management system used by UNB was unavailable to MAHE students when the first modules were taught and, hence, we maximized the features of Microsoft Teams for document sharing and group meetings.

Students were provided with a course outline highlighting the specific UNB course outcomes and the NANB ELCs addressed in the Therapeutic Communications module. These outcomes and competencies were identified in the gap analysis and served to address abilities for a UNB BN degree and to address the NANB competencies. For example, ELC 3.7, “Communicates effectively in complex and rapidly changing situations” (NANB 2020a: 10) was not explicitly addressed in the Indian curriculum. The theory was introduced related to assertive communication and the SBAR (Situation, Background, Assessment and Recommendation) framework. Students also worked through decision points in a virtual simulation game during the class. Each of the module objectives was

also linked to an assessment. The module assessments included test questions and a writing assignment. There was frequent collaboration with students and MCON to establish module delivery, assignment submission and test dates.

Faculty from MCON and UNB who were part of the collaborative program joined the Microsoft Teams classes as their schedules allowed. This further supported student engagement and allowed students to meet the UNB faculty. MCON faculty were better aware of the content and were able to support and facilitate feedback and address student issues. In the introductory class, students were invited to share their personal strengths to understand situational, contextual and environmental aspects.

Understanding culture is a complex and iterative process. Faculty involved in the dual degree program are in the early stages of understanding and appreciating the cultural differences in this global initiative. The professional identity of nurses in India and Canada have profound similarities, while at the same time there are differences that are visible and others that are unseen. There have been intentional efforts to share cultural elements. The UNB faculty were invited to a live stream of MCON's "Awards and Annual Day" showcasing faculty and student accomplishments. Course presentations to the students included seasonal pictures and sharing of Canadian holidays and traditions. Students' reflection papers related to the NANB's Standards for the Therapeutic Nurse-Client Relationship revealed cultural differences (NANB 2020b). Examples include practices related to interdisciplinary communication as well as patterns of gift-giving.

Experiential Learning as an Acculturation Process

The collaboration between MAHE and UNB extends beyond the dual degree program as evidenced by the UNB Strategic Plan (UNB n.d.) and the UNB Nursing Academic Plan for Global Health (UNB Faculty of Nursing Academic Plan 2021). Strategic priorities in the nursing plan encompass but are not limited to transformative global educational experiences for UNB nursing students, including (1) the development of sustainable learning experiences in global health, (2) the exploration of mutually beneficial international collaborative opportunities in nursing education and (3) the provision of support for faculty to cultivate research opportunities with international peers. The collaboration between MAHE and UNB includes elements of all these targets by both faculty and students. All MCON faculty engaged in the dual degree program were invited to apply for honorary appointments within the UNB Faculty of Nursing to support collaboration in research and for graduate student engagement. Two applications are in the review process. UNB was also invited to apply for adjunct appointments to MAHE with one application granted.

Alongside the dual degree nursing program, UNB students from nursing and other faculties were invited to attend the Manipal International Summer School (MISS) for a two-week academic and cultural immersion course in the summer of 2023. The first UNB nursing student who participated in the MISS was supported to extend her time at MAHE to meet with the 2022 and 2023 cohorts of dual degree nursing students. This facilitated an exchange of personal, program and cultural information between and among students while fostering leadership skills as student ambassadors of each university. In addition, UNB welcomed a cohort of fourth-year MCON nursing students and faculty to NB for two weeks in August 2023. Nine students completed a preceptor-led clinical practice experience in two healthcare facilities: acute surgical care and long-term care. MCON faculty members met with numerous university representatives and support partners. Meeting representatives from the Centre for Enhanced Teaching Learning, which provides the learning platform and various technologies used in the dual degree delivery, further enhanced capacity building between the universities (<https://www.unb.ca/fredericton/cetl/>). The MCON faculty and students experienced Canadian culture and established personal and academic connections with the UNB faculty, students and staff within our partner healthcare facilities. The dual degree program will afford MAHE students an opportunity for an immersive acculturation experience within Canada. Students in their final semester will have the option to complete all or a portion of their preceptorship in an NB healthcare facility.

Challenges and Limitations

The dual degree model is being implemented by one university in a comparatively small Canadian province with an English-speaking, international partner. The lessons learned may be limited to similar partnerships where the language of instruction is English. Furthermore, the opportunity for nurse educators across Canada to adapt this model may take time due to differing regulatory requirements, navigating more complex governmental processes and engaging with multiple employers involved in the international recruitment of nurses.

Government ministries and healthcare employers traditionally do not consult with or include nurse educators within academia in their recruitment plans. Nursing leaders at UNB questioned existing practices related to the ethical management of recruitment and migration processes, particularly deskilling of RNs. This became a call to action for NB, as a province within a source country, to consider alternatives for investing in the healthcare system (Cometto et al. 2023). Creating a network of organizations committed to maintaining the ethical approach of the dual degree model may be challenging as provincial demands for workforce renewal fluctuate. Given that the degree requires four years for completion, short-term strategies such as the preceptorship idea, may not fit some organizations; thus alternatives will need to be explored.

The WHO identified 55 source countries experiencing a universal human resource crisis exacerbated by outward migration of healthcare workers to destination countries such as Canada (WHO 2023). While it is noteworthy that India is not on this list, the opportunity for INC to grant supernumerary seats for the dual degree may be attributed to existing capacity within the country. Such an opportunity may be challenging for regulatory agencies in countries that do appear on the list due to resource capacity.

Looking to the Future

The current nursing shortage became particularly dire post-COVID-19. Experiencing burnout, exhaustion and frustration at being overworked, understaffed and under-appreciated, hundreds of nurses permanently left the profession or took early retirement. Amid this human resource shortage crisis, relying on a steady stream of new nursing graduates from Canadian nursing schools has become insufficient. Foundational to a sufficient and stable nursing workforce funnel, schools of nursing are in a unique position to identify and deliver the requisite teaching and learning for Canadian nursing practice. The experience in NB is an example of nursing taking the lead to change workforce management. This innovative, international, tripartite collaboration of nurse leaders from education, practice and regulation in two countries, created a partnership that supports Canadian educators' ability to respond to the needs for increased seat capacity and employers' workforce needs for more nurses and significantly reduces regulators' time to grant licensure. Simultaneously, Indian educators were recognized for the first supernumerary seat expansion for a dual degree in the country; employers' capacity to recruit new graduates remained stable and the regulator ensured competencies would be achieved for employment in both countries. The mutually beneficial nature of this partnership is distinctive and should not be underestimated. The willingness of the nurses to challenge the practice of deskilling while offering a viable solution was risky. Launching the dual degree as two nations changes the discourse from Canada aggressively recruiting experienced nurses to one of investing in bilateral health human resource management as its educational foundation.

An unanticipated outcome of this collaboration has been the continuation of the tripartite relationship within NB. The siloed approach of education, practice and regulation is being replaced by a solutions-based approach, capitalizing on the shared knowledge and expertise among the partners as influencers of transformative change (Doane and Varcoe 2021; Weberg and Davidson 2021). This led to a joint initiative to build a global design for the onboarding of MCON graduates to the healthcare system. By incorporating advanced technologies of simulation and virtual reality, we will essentially take our health region to MAHE for enhanced learning and preparedness for the practice setting.

Preparing international graduates to be *practice ready* upon completing their undergraduate program is possible through the dual degree program. The licensure of IENs has been a long-standing and an unduly necessary protracted process and often taking place in the shadows of unethical poaching practices, leaving lower-income countries short on qualified nurses. Steps taken by some provincial/territorial jurisdictions in recent months will hopefully decrease the application processing time for RNs to come to Canada (Nova Scotia College of Nursing n.d.) while other novel pathways continue to emerge.

Conclusion

In April 2023, the Indian government announced that 157 new colleges of nursing would be established within two years. A goal was to meet global standards in support of outward mobility given the interest of foreign countries to recruit Indian nurses (Perappadan 2023). Since India has one curriculum for the country, the impact of this announcement is unknown; however, the dual degree model could be replicated across the country. Graduates of the dual degree remaining in India will have the advantage of clinical experiences in two countries with a broader scope of nursing practice on a global basis and will be recognized as having a nursing degree from two universities. Their input could add value to implement this announcement.

The focus of our work has been on curricular design to meet the competencies of both the INC and the NANB. Going forward, the experiential learning opportunities of the preceptorship and inter-country student exchange opportunities will demonstrate reciprocal learnings related to nursing practices, policy development and the role of the nurse within the Indian healthcare system.

The early learnings have been significant; faculty in both countries have been enthusiastic and expressed their excitement about the collaboration. Given the post-pandemic preponderance of online and remote learning, the notion of international partnerships and dual degree programs with other countries has become quite feasible and cost-effective. Nursing will be well-positioned to advise other health disciplines interested in adapting the dual degree model.

The experience thus far demonstrates mutual benefits to be derived from a collaboration between nursing schools in different countries. Although the concept of collaborative nursing programs is familiar in Canada (e.g., university-college degree programs), the international MAHE-UNB dual degree program is a novel model that may warrant replication between other schools of nursing. As the second cohort of students in the dual degree program begins, more opportunity using remote delivery methods exists for faculty engagement, research collaboration and further dialogue on the scholarship of teaching and learning across the globe.

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