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Review Article

Decolonizing and Indigenizing pharmacy education in Canada

Jaris Swidrovich

University of Saskatchewan, College of Pharmacy and Nutrition, 104 Clinic Place, Saskatoon S7N 2Z4, Saskatchewan, Canada



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ABSTRACT

Background: An emphasis on equity, diversity, and inclusion is growing within the field of education, including health professions education. In particular, no published literature exists regarding decolonizing and Indigenizing pharmacy education. Post-secondary pharmacy programs in Canada have a unique opportunity to learn from the decolonizing and Indigenizing practices observed in the educational programs of other health professions and post-secondary institutions and become international leaders in this area.

Methods: Literature searches on PubMed, MEDLINE, ERIC (Ovid), iPortal, and PsycINFO were performed, revealing zero articles on decolonizing and/or Indigenizing pharmacy education. Search terms were expanded to include all health professions education programs with published literature on decolonizing and Indigenizing practices. All publications that included either or both terms (decolonizing and/or Indigenizing) and within any realm of health professions education (e.g., curriculum, assessment, evaluation, instructional design) were reviewed.

Results: Literature on decolonizing and Indigenizing health professions education in health disciplines, such as nursing and speech pathology, were reviewed. In conjunction with literature on decolonization and Indigenization of education, with a focus on post-secondary institutions, a number of strategies are proposed to decolonize and Indigenize pharmacy education.

Implications: Findings from this review will better inform post-secondary pharmacy education programs to engage in decolonization and Indigenization practices. Engaging in decolonization and Indigenization of pharmacy education is expected to not only improve the educational experience of Indigenous students in pharmacy programs, but also improve the care received by Indigenous patients from all graduates of pharmacy.

Background

Pharmacists have a unique role in the health care system as the most accessible health care professional in Canada.¹ In addition to their high level of accessibility, pharmacists are consistently ranked as one of the most honest, ethical, and trusted professionals.^{1,2} While the majority of pharmacists in Canada work in community practice, pharmacists can be found working in hospitals, industry, government, and universities.¹ Given such overwhelming accessibility and positive perceptions, pharmacists have an incredible responsibility to serve and care for the people of Canada and beyond. Recognizing Canada's rich diversity, pharmacists should be prepared to work effectively, efficiently, and in a culturally safe manner with people and communities of diverse backgrounds. Indigenous¹ people in Canada, in particular, are known to have a life expectancy of seven to fifteen years less than the non-Indigenous

E-mail address: jaris.swidrovich@usask.ca.

¹ The term Indigenous is used throughout this article as a synonym for “Aboriginal.” In Canada, the term “Aboriginal” is a government imposed, legally defined term collectively referring to all of the Indigenous peoples of Canada and their descendants. The Canadian Constitution Act of 1982 specifies that the Aboriginal Peoples in Canada consist of three groups: First Nations (Indians), Inuit, and Métis.³

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population and experience poorer health outcomes versus the non-Indigenous population.³ The visibility of pharmacists as front-line health practitioners places them in an ideal position to not only respond to Indigenous health inequities, but also to proactively and collaboratively work toward closing the health care gaps experienced by Indigenous Canadians.

In spite of the potential for pharmacists to act as catalysts for change in this area, the lack of Indigenous knowledges in pharmacy curricula is glaringly absent in most faculties across the country.⁴ Learning outcomes specific to Indigenous populations have generally been absent in the learning outcomes posed for Canadian pharmacy curricula and for the accreditation of Canadian faculties of pharmacy.⁵ While concepts related to cultural competency and cultural safety can be found within the learning outcomes and accreditation standards set for Canadian pharmacy programs, such concepts are subject to being taught and learned without any reference to Indigenous Canadians, the intergenerational effects of colonization, or to the landscape of Indigenous health in Canada. For example, without specific guiding language in the accreditation standards, educators may satisfy the accreditation requirements to teach students about cultural competency and cultural safety through examination of other cultural groups and ethnicities without a critical examination of Indigenous history and relations in Canada. Further, inclusion of Indigenous content in pharmacy programs is less likely to take place with a small proportion of Indigenous people in the administrations and programs of pharmacy across Canada, and specifically Indigenous instructors of pharmacy.⁴ It is known that non-Indigenous instructors often describe challenges and high levels of discomfort in teaching Indigenous content in their programs, which often translates to inauthentic representations of Indigenous history and knowledge, tokenized Indigenous teachings by inviting one-off Indigenous guest lecturers, and/or avoiding teaching Indigenous content altogether.⁶ As such, the absence of mandatory Indigenous learning outcomes, courses, and accreditation standards, coupled with a low number of self-identified Indigenous instructors of pharmacy, Canadian faculties of pharmacy are left with an enormous opportunity for growth and preparing learners in pharmacy to practice in culturally safe manners with Indigenous peoples, families, and communities in Canada.

In 2016, the population of Indigenous people in Canada was reported to be 1,673,785, which is approximately 4.9% of the population of Canada.⁷ The number of Indigenous Canadians is expected to increase to between 1,965,000 and 2,633,000 by 2036.⁸ As a proportion, this constitutes an increase from 4.4% in 2011 to between 4.6% and 6.1% in 2036. The provinces of Manitoba and Saskatchewan are projected to continue to have the largest Indigenous population relative to the size of the total population of each province.⁸ The proportion of Indigenous people is expected to rise to between 17.6% and 21.3% in Manitoba and between 18.5% and 22.7% in Saskatchewan by 2036.⁸ Additionally, the number of Indigenous students is increasing in post-secondary education; however, enrollment in the sciences, including pharmacy, is lagging.^{9,10} The Truth and Reconciliation Commission of Canada,² specifically, called health professional education programs to action to not only include Indigenous education in all health professional training programs but also to increase the number of Indigenous health professionals.¹¹ As such, Canadian faculties of pharmacy should engage in decolonization and Indigenization of pharmacy education as a means of adequately preparing pharmacy students to be confident and competent health providers with, by, and for the Indigenous peoples of Canada. This paper will critically analyze existing literature on the decolonization and Indigenization of health professions education as a means of proposing actionable strategies for Canadian faculties of pharmacy to embark on a similar journey.

Methods

Comprehensive searches on PubMed, MEDLINE, ERIC (Ovid), and PsycINFO were performed to identify publications employing the search terms “decolonize,” “decolonizing,” “decolonization,” and “Indigenize,” “Indigenizing,” and “Indigenization.” When these terms were combined with “pharmacy,” zero results were yielded. The same terms were then combined with “health” and “education,” yielding 12 results. No further results were yielded with the addition of terms to describe specific Indigenous groups (“First Nations,”³ “Inuit,”⁴ and “Métis”⁵), including terms no longer socially accepted (e.g., Indian, Eskimo, Native). Additional publications regarding decolonizing and/or Indigenizing health professions education were retrieved via Google Scholar; however, zero of the yielded results had a focus on pharmacy education. Given the variabilities in interpretations of decolonization and Indigenization, all publications that included either or both terms and within any realm of health professions education (e.g., curriculum, assessment, evaluation, instructional design) were reviewed, which totaled to be five articles.

Of note, the author of this review is a Saulteaux First Nations pharmacist and educator from Treaty 6 territory in Saskatchewan,

² The Truth and Reconciliation Commission of Canada was a multi-year process to listen to Survivors, communities and others affected by the Residential School system. The resulting collection of statements, documents and other materials now forms the heart of the National Centre for Truth and Reconciliation. The outcome of the Truth and Reconciliation Commission of Canada was 94 Calls to Action published in the Fall of 2015 that call on all Canadians, all levels of government, educational institutions, and others to learn and share Canada's truth and engage in reconciliation with the Indigenous peoples and communities of Canada.¹¹

³ The term First Nations describes the first peoples of Canada and came into common use in the 1970s to replace Indian, which some people found offensive. Despite its widespread use, there is no legal definition for this term in Canada. The Canadian government classifies First Nations/Indian people according to whether or not they are registered under the federal Indian Act. Status Indians are registered under the Act. First Nations/Indian people who are not registered under the Act are referred to as non-status Indians.³

⁴ The Inuit traditionally lived above the tree line of what is now Canada and are part of a larger circumpolar Inuit population that includes Greenland, Alaska, and Russia. Inuk refers to an individual Inuit person.³

⁵ The Métis are a group of Aboriginal peoples whose ancestry can be traced to the intermarriage of European men and First Nations/Indian women in Canada during the 17th century. Individuals of mixed Indigenous and non-Indigenous ancestry who are not directly connected to the Métis of the historic northwest may also identify themselves as Métis.³

Canada and brings the perspective and insight of an Indigenous person, academic, and pharmacist with a primarily Indigenous (First Nations) worldview. Additionally, while academic journals require structured methodological review of peer-reviewed publications, it is recognized that this practice is a colonized way of engaging in decolonization; however, Indigenous ontologies and epistemologies have few other avenues for dissemination to academic audiences that are primarily non-Indigenous.

Results

While the study of decolonization in pedagogy is decades old, there has been a resurgence in recent years, particularly as a means of responding to the Truth and Reconciliation Commission of Canada's Calls to Action and the United Nations Declaration on the Rights of Indigenous Peoples.^{11–13} There is a noticeable dearth of literature, however, that focuses on decolonization and Indigenization within educational programs for the health sciences. In the realm of pharmacy education and practice, specifically, no identifiable literature exists. As such, the more recent emergence of dialogue and literature on decolonizing and Indigenizing health professions education leaves a number of gaps. Despite the gaps in literature, noticeable patterns do exist in other post-secondary settings that will advise similar processes and understandings in pharmacy education in Canada.

Decolonization, as it pertains to the content in this paper, is understood to be a “multilateral process of understanding and unpacking the central assumptions of domination, patriarchy, racism, and ethnocentrism that continue to glue the academy's privileges in place.”¹² While there may be a number of interpretations of how Indigenization is defined, this paper uses the following definition: “the transformation of the existing academy by including Indigenous knowledges, voices, critiques, scholars, students and materials as well as the establishment of physical and epistemic spaces that facilitate the ethical stewardship of a plurality of Indigenous knowledges and practices so thoroughly as to constitute an essential element of the university. It is not limited to Indigenous people, but encompasses all students and faculty, for the benefit of our academic integrity and our social viability.”¹⁴

Privileging of Western knowledge

Western knowledge systems created, and continue to inform, the oppressive nature of health professions education, including pharmacy education in Canada. The teachings of Western medicines, for example, repeatedly dismiss traditional knowledges by privileging Western knowledge. Western medicines have become the philosophical foundation of teaching and learning in pharmacy schools across Canada, with the original medicines and knowledges of this land being given the official designation of Complementary and Alternative Medicine.¹⁵ Education, in the context of Canadian post-secondary institutions, has “serially obstructed and evaded Aboriginal knowledge in a way that shelters and sanitizes a destructively colonial and Eurocentric legacy,”¹² with pharmacy education being no exception. Operating from, and teaching with, the understanding that Western medicines and health practices are superior to other methods, undermines the contributions of Indigenous peoples to the practice of medicine.

Indigenous, and non-Indigenous, students who pursue Canadian pharmacy education are indirectly and systematically taught to devalue non-Western medical approaches and medicines when the (Western) knowledge system that inform the approaches and medicines taught is not named. Whether intentional or unintentional, not naming Western knowledge as the primary source of knowledge shared in pharmacy education privileges Western knowledge over all other knowledge systems. The perpetuated presumption of the superiority of Western medicine “...attempts to impose cognitive assimilation on Aboriginal students while denying the reform required to achieve a respectful and productive liberation for Aboriginal peoples from the educational apparatuses of colonialism.”¹² In addition, Indigenous knowledges are often “...dismissed as ignorance or valued as an exotic addendum or romantic access to the primitive and pristine.”¹² As such, pharmacy students are socialized to develop similar ideologies regarding Indigenous knowledge in the health sciences and the practices of medicine and pharmacy.

Nursing education is also known to experience similar challenges. Western science, which dominates nursing education, is linked with “whiteness” and historical accounts of nursing's evolution as a profession render invisible the leadership of Indigenous nurses.¹⁶ McGibbon et al.¹⁶ discussed the colonization of nursing textbooks and nursing education whereby racism and white privilege play central roles. Recognizing the influence of settler and Western knowledge and ways of knowing, the process and experience of education for students in nursing becomes homogenized, whether consciously realized and acknowledged or not.¹⁶ Despite efforts to make nursing schooling more inclusive, for example, the system of teaching and learning is primarily reflective of white, Western, or Eurocentric interests.¹⁷ The privileged Western knowledge renders less resistance for white students to succeed when the primary modes of instruction, the content, evaluation, and design of the faculties of health professions is grounded in whiteness; therefore, the knowledge and lived experiences of those who are white is privileged over others (e.g., Indigenous students).¹⁷

Holistic (Indigenous) versus dissected (Western) knowledge

In the context of health professions education, Western knowledge systems dissect knowledge and health into compartments and categories or boxes, whereas Indigenous knowledge systems are interconnected and exist in a holistic model.¹⁸ Educating students in the health professions through Western approaches not only further contributes to cognitive assimilation in how students think about and approach the care of their patients, but it also risks the loss and devaluation of traditional Indigenous approaches to health and wellness that Indigenous students may have been fortunate enough to grow up practicing. For both Indigenous and non-Indigenous students, regardless of their own upbringings and familial or traditional knowledge systems, the Western approaches to teaching and learning in health professions education likely also risks disengagement and difficulties developing rapport with students' future Indigenous patients who practice traditional ways of knowing, thinking, being, and doing.

Indigenous approaches to teaching and learning are more than a difference in perspectives (e.g., versus Western perspectives) and, instead, focus on one's relationship with the universe, the Creator, and the land.¹⁹ Decolonizing pedagogy in the context of social work education, for example, requires shifting away from a “banking” concept of education whereby students are seen as a blank slate to be filled with knowledge from the educator/expert.¹⁹ Instead, faculties should adopt multiple ways of knowing, being, and doing, including Indigenous approaches where both the educator and student must involve themselves in the process of healing, learning, and developing a path guided by Indigenous epistemologies.¹⁹

Need for Métis and Inuit visibility

In considering Indigenous approaches to teaching and learning as it relates to decolonizing and Indigenizing health professions education, the histories, knowledges, and practices of the Métis and Inuit, specifically, must also be recognized. While in its Canadian context, the term Indigenous applies to First Nations, Métis, and Inuit peoples, much of the efforts regarding decolonization and Indigenization often is predominantly, or entirely, grounded in First Nations worldview.²⁰ Gaudry and Hancock²⁰ discussed ways in which pedagogy in post-secondary education can facilitate critical and engaged reclamations of Métis knowledges through critical intellectual and experiential engagement. Recognizing that the overrepresentation of Indigenous peoples as consumers of the Canadian health care system is not exclusive to First Nations peoples, intentional dedication to include Métis and Inuit approaches to pedagogies and methodologies and their contributions to, and understandings of, health and wellness is essential. As such, not only is commitment to Métis and Inuit inclusion in the teaching and learning practices within pharmacy education likely to better inform and prepare students to care for Métis and Inuit patients, families and communities, but it is also expected to contribute to enhanced engagement of and sense of belonging for Métis and Inuit students in the classroom.

Need for Indigenous staff and faculty

Beyond the necessary inclusion of the Métis and Inuit in the decolonization and Indigenization of health professions education, Canadian faculties of pharmacy, for example, are left with the challenge of accomplishing meaningful progress without a critical mass of Indigenous staff and faculty.⁴ Recognizing that decolonization and Indigenization of pharmacy education involves much more than integrating Indigenous content into the curriculum, the expectation for Canadian faculties of pharmacy to decolonize and Indigenize their approaches to teaching and learning without Indigenous staff and faculty members to lead such developments has already been met with resistance and slow progress.⁴ Striving to decolonize and Indigenize pharmacy education in ways that are grounded in Indigenous worldviews without such worldviews and lived experience existing within faculties of pharmacy, faculties are vulnerable to inauthentic Indigenous approaches to teaching and learning.

Ottmann²¹ suggested decolonizing teaching and learning begins in the classroom and illustrated ways in which educators, Indigenous or non-Indigenous, can act as decolonization change agents in educational institutions. To begin the process of decolonizing teaching, educators must ask: “Who am I? Where did I come from? Where am I going? What are my responsibilities?”²¹(p.15) Such questions instigate a deeply introspective journey for educators to explore their own truth in terms of critically evaluating their own ethnic background and history, the relationship of that background and history with Indigenous history and peoples in Canada, and then meaningfully and passionately transferring learning to their students.²¹ Recognizing that organizational change begins with individuals, educators are therefore the rate-limiting step who will either further the cause of decolonization and Indigenization or impede it.²¹ In Canadian faculties of pharmacy, specifically, where few known self-identified Indigenous faculty members exist, much of the progress toward decolonization and Indigenization of pharmacy education will be dependent on non-Indigenous educators.⁴ Ottmann²¹ highlighted that educators exploring the counter-story (e.g., critically evaluating their own worldview and how their worldview came to be) subsumed within their teaching will provoke a different story that can open and shift their horizon, which then might “...open the door to learning about others (knowing self, knowing others),” and therefore “...lead to transformation of being and doing for the individual and institution, resulting in authentic relationships, then the addressing of injustices.”²¹(p.16)

Similar ideology to Ottmann's²¹ approach to decolonizing and Indigenizing post-secondary teaching and learning is illustrated by Pete, Schneider, and O'Reilly.²² Universities, they described, have typically served to marginalize and oppress Indigenous peoples, their ways of knowing, and their histories.²² The same can be said about pharmacy education in that all students, Indigenous and non-Indigenous, are cognitively assimilated to value Western medicines and approaches to health and wellness over that of Indigenous populations. Just as Ottmann²¹ described, progress can be made, though, even in settings like Canadian faculties of pharmacy where there are limited Indigenous staff and faculty. Pete et al.²² emphasized the criticality of introspection and exploring the counter-story subsumed within educators' teaching as a means of decolonizing and Indigenizing teaching and learning. Similar processes and explorations must occur across Canadian faculties of pharmacy as part of the journey to decolonize and Indigenize pharmacy education.

Challenges with curricular change

Intuitively, educators in post-secondary institutions often turn to colleagues in Indigenous studies for assistance in decolonizing and Indigenizing teaching and learning; however, departments of Indigenous studies have similar challenges (R. Innes, oral communication, August 2018). The inclusion and delivery of Indigenous studies in academic institutions is often approached and executed through colonial processes, essentially contradicting the messaging delivered in Indigenous studies courses.²³ The similar challenges faced in faculties of Indigenous studies serve as a reminder that decolonization and Indigenization involves more than

teaching Indigenous content and curricular changes; the ways in which we design and deliver education should also be decolonized and Indigenized. With a significant journey ahead to decolonize and Indigenize pharmacy education, faculties of pharmacy may find reassurance knowing that faculties of Indigenous studies also face similar challenges and opportunities in efforts that go beyond curriculum.

When efforts to decolonize and Indigenize post-secondary programs do include curricular changes, significant opportunity exists to ensure Indigenous worldviews are incorporated into the curriculum, pedagogies, and both teaching and research methodologies. Ragoonaden and Mueller²⁴ shared their experience of developing a university course in collaboration with local First Nations communities, and the staff and faculty of the Faculty of Education at the University of British Columbia. Key discoveries at the conclusion of the first offering of their newly revised curriculum included three themes: the importance of learning, peer mentoring, and the relationship with the instructor.²⁴ Recognizing that students who are culturally diverse have a tenuous relationship with schools whose educational practices emphasize traditional, Eurocentric, and normative approaches, the authors' story of their Indigenized course serves as an excellent exemplar of how the relationship between culturally diverse students, including Indigenous students, and the educational institution can be enhanced.

Student and patient impacts of decolonization and Indigenization

The student impacts of decolonizing and Indigenizing health professions education, specifically, can be profound. Such impacts are not only likely to be experienced by Indigenous people, patients, and communities that students will ultimately serve, but also by the Indigenous students themselves. Indigenous students pursuing audiology and speech therapy, for example, experienced disengagement and detachment from their professional roles and even risked forgetting their own truths when their lived experiences were not valued, discussed, nor acknowledged throughout their professional learning journeys.²⁵ Interactions between a professional and a patient of the same Indigenous community became awkward and a distance was felt between them, which was hypothesized to be rooted in the fact that white culture dominated the teaching and practice of the professionals and made it more challenging for the professionals to remember who they and their patients are.²⁵ As such, effective decolonization and Indigenization of health professions education is presumed to promote enhanced experiences among patients they will serve and also for the students themselves.

Structural challenges with Elder engagement

As faculties of health professions programs, like pharmacy, engage in decolonization and Indigenization, where there are often few Indigenous faculty members to lead such developments, it is recognized that Indigenous people external to the faculty and/or institution are often consulted for assistance. When engaging with such external persons and/or communities, following culturally appropriate protocol is critical. Sasakamoose and Pete²⁶ shared a number of essential stories to emphasize the importance of moving forward in a good way. For example, when asking Elders for their guidance in decolonizing and Indigenizing health professions programs, honoraria is usually given; however, institutional processes do not usually facilitate cash honoraria payments and therefore Elders often end up owing tax and may also see reductions in their old age security payments.²⁶ Since reciprocal and genuine relationships are foundational to effective partnerships with and between Indigenous peoples and communities, avoiding such consequences is imperative when requesting the assistance of Elders. As such, post-secondary faculties and institutions as a whole must ensure that their policies evolve to be inclusive of Indigenous peoples in their decolonization and Indigenization processes, whether through policies requiring traditional ceremonial practices (e.g., smudging), cash payments for Elders, or catering certain traditional foods to the institution that were not prepared by an officially “recognized” caterer.²⁶ In what is arguably a considerable challenge already, the absence of such policies in universities and/or faculties of pharmacy will only complicate efforts to decolonize and Indigenize.

Implications

Reflecting on decolonizing and Indigenizing literature regarding health professions education, a number of strategies arise to actualize similar processes in Canadian faculties of pharmacy. Not only must Canadian faculties of pharmacy increase efforts to teach Indigenous content, but they also must adapt to the changing landscape of Canada's population to be more inclusive of Indigenous learners, staff, and faculty. Committed and meaningful efforts to recruit and retain Indigenous staff and faculty must be a priority. Actions related to Indigenous engagement and the development, inclusion, and teaching of Indigenous content should be led or co-led by Indigenous staff, faculty, and Elders, in keeping with a “nothing about us without us” philosophy.²⁷ In faculties of pharmacy with no or few self-identified Indigenous staff/faculty, human resources personnel who specialize in the strategic recruitment and retention of Indigenous employees should be consulted for assistance. Attaining a critical mass of Indigenous staff and faculty across Canadian faculties of pharmacy will not only ensure a more representative workforce, especially in the prairie provinces where the Indigenous population is proportionally the highest, it but may also ease the discomfort of non-Indigenous instructors who may be responsible for the development and teaching of Indigenous course content. For Indigenous learners who are considering or who are already in a pharmacy program, having Indigenous staff/faculty mentors can be exceptionally inspiring and encouraging.

Beyond a sincere commitment to hiring Indigenous staff and faculty, concentrated efforts to recruit and retain Indigenous students in pharmacy are crucial. While efforts to attain a proportion of Indigenous students that is similar or equal to the proportion of Indigenous peoples in each respective province is an excellent start, the proportion of Indigenous students in a pharmacy program may be argued to be higher than the respective proportion of Indigenous citizens in the particular province where the faculty exists,

given the overrepresentation of Indigenous people in the health care system. Equity seats for Indigenous applicants in each Canadian faculty of pharmacy is ideal, just as all Canadian faculties of medicine have adopted²⁸; however, recruitment and retention efforts beyond reserved equity seats are critical. Dedicated attention to recruitment strategies, materials, messaging, and development opportunities for recruitment personnel is essential. Ongoing relationship building and developing partnerships with Indigenous communities and organizations is vital to move forward in a good way. Visual recruitment materials should feature First Nations, Métis, and Inuit staff, faculty, and students, and should honour the historical territory and Indigenous language where the faculty of pharmacy resides.

Careful consideration of admission processes is also warranted, especially for faculties of pharmacy that require highly-standardized entrance examinations, including the Pharmacy College Admission Test, since Indigenous learners are less likely to excel on a timed examination that does not provide the opportunity to take time to reflect and slowly and accurately answer the examination questions.²⁹ Once admitted to a faculty of pharmacy, Indigenous learners should have access to dedicated mentorship and guidance from staff, faculty, and fellow students, both Indigenous and non-Indigenous, as a means of retention and honouring the community of support that is valued and desired by most Indigenous learners.

The pedagogy in pharmacy classrooms must be inclusive of Indigenous cultures, languages, and worldviews, regardless of Indigenous or non-Indigenous instruction. Toulouse³⁰ summarized research that describes a number of factors known to contribute to the success of Indigenous students, such as caring instructors who have high expectations, classroom environments that honour Indigenous students' cultures, languages, worldviews, and knowledges, schools that have strong partnerships with Indigenous communities, and engaging in teaching practices that support diverse learning styles (e.g., differentiated instruction and evaluation). Methods that honour Indigenous student learning styles include the provision of opportunities to engage in small-group and pair activities, time for reflection and for answering questions, among other strategies. Professional development opportunities must be offered to staff and faculty in pharmacy schools to increase knowledge, confidence, and competence in creating an inclusive classroom environment.

Outside of the classroom environment, pharmacy learners are required to complete clinical practice experiences as part of each faculty's experiential education program. Tremendous opportunity exists within experiential education programs to respond to the Truth and Reconciliation Commission of Canada's Call to Action #24, which specifies that skills-based training in intercultural competency, conflict resolution, human rights, and anti-racism be offered, in addition to classroom courses in Indigenous health issues.¹¹ Relationships, partnerships, and signed memoranda of understanding with Indigenous communities and organizations may be excellent stepping stones to moving forward together in a good way. Not only must pharmacy staff, faculty, and learners become well-prepared to work effectively with Indigenous patients and families, and within Indigenous communities, but the communities, health centres, and other experiential education sites, must also be prepared to welcome pharmacy learners.

For students, staff, and faculty engaged in Indigenous health research, training and development opportunities in intercultural research and Indigenous research methodologies and protocols is required. Specifically, education and training on Chapter 9 of the Tri-council Policy Statement: Ethical Conduct for Research Involving Humans³¹ must be mandatory for researchers, members of committees reviewing the research of students and faculty, and for graduate students participating in research that involves Indigenous Canadians. Graduate students should also have the opportunity to learn about Indigenous histories, health, and reconciliation in the classroom, especially considering many graduate students in pharmacy do not have an entry-to-practice degree in pharmacy and/or are newcomers to Canada. Such graduate students may not have had another opportunity to learn about the landscape of Indigenous health in Canada and how it is critically important in pharmacy practice in Canada.

The academy's need to adapt, and the variety of strategies by which Canadian faculties of pharmacy may move forward, is clear. Dedicated commitment toward increasing, recruiting, and retaining Indigenous learners, staff, and faculty, as well as actions and changes related to curriculum, assessment, and research, faculties of pharmacy in Canada are encouraged to also consciously create inclusive and welcoming spaces that honour our Indigenous peoples. Whether naming classrooms and meeting rooms after local and national Indigenous leaders or installing Indigenous art and other visual media within each Canadian faculty of pharmacy, all students, staff, faculty, and visitors should be reminded of the traditional land where the university resides. Further, Indigenous students, staff, faculty and visitors may feel a stronger sense of welcome and valuation with such visible methods of honouring their presence and the traditional territory.

While the available literature on decolonizing and Indigenizing teaching and learning in health professions education is limited, it will assist and guide faculties of pharmacy in engaging in similar journeys. Recognition should be given, however, that turning to published literature to better understand decolonization and Indigenization in health professions education is a colonized way of engaging in decolonization. In First Nations culture, for example, Elders often will state who their teachers have been, although they are never asked for references or sources or information or to defend their knowledge and teachings; however, this is predominantly how we approach the validation of knowledge in Westernized post-secondary systems. This reality serves as a reminder that growing efforts are required in the journey to truly decolonize and Indigenize teaching and learning in pharmacy. More research, albeit a primarily Western way of knowing, is required to understand how decolonizing and Indigenizing pharmacy education may lead to improvements in the health care experiences and health outcomes of Indigenous Canadians. Indigenous research methodologies should be employed in embarking on a journey of decolonization and Indigenization that crosses all silos of faculties of pharmacy, including all relevant practices specific to teaching and learning. Additionally, next steps in decolonizing and Indigenizing should be led, or co-led, by Indigenous people. Not only is decolonizing and Indigenizing Canadian pharmacy education likely to have a profound effect on the current and future Indigenous, and non-Indigenous, students and educators in pharmacy, it also is expected to produce meaningful impacts that may assist in improving health outcomes experienced by Indigenous Canadians and contribute to positive advancements in the way Indigenous peoples experience the health care system.

Disclosure(s)

None.

Declaration of competing interest

None.

References

- Berardi C. PAM 2016: Changing roles help pharmacists do more for patients. Canadian Pharmacists Association. <https://www.pharmacists.ca/news-events/cpha-blog/pharmacist-awareness-month-2016/>. Accessed 8 November 2019.
- Marotta R. Pharmacists remain among most trusted professions. Pharmacy Times. <https://www.pharmacytimes.com/news/pharmacists-remain-among-most-trusted-and-ethical-professionals>. Published 09 February 2018. Accessed 8 November 2019.
- Allan B, Smylie J. First Peoples, Second Class Treatment: The Role of Racism in the Health and Well-being of Indigenous Peoples in Canada. Wellesley Institute. <http://www.wellesleyinstitute.com/wp-content/uploads/2015/02/Report-First-Peoples-Second-Class-Treatment-Final.pdf>. Published 2015. Accessed 8 November 2019.
- Lillie E. *The state of indigenization in Canadian pharmacy programs*. Paper presented at: 76th Annual Meeting of the Association of Faculties of Pharmacy of Canada 12 June 2019; [Edmonton, AB].
- AFPC educational outcomes for first professional degree programs in pharmacy in Canada 2017. Association of Faculties of Pharmacy of Canada. <https://www.afpc.info/content/2017-educational-outcomes>. Published June 2017. Accessed 8 November 2019.
- Tupper J. The possibilities for reconciliation through difficult dialogues: treaty education as peacebuilding. *Curric Inq.* 2014;44(4):469–488.
- Aboriginal peoples in Canada: key results from the 2016 census. Statistics Canada. <https://www150.statcan.gc.ca/n1/daily-quotidien/171025/dq171025a-eng.htm>. Published 25 October 2017. Accessed 8 November 2019.
- Projections of the aboriginal population and households in Canada, 2011 to 2036. Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/91-552-x/91-552-x2015001-eng.htm>. Published 17 September 2015. Accessed 8 November 2019.
- Hogue M. Interconnecting aboriginal and Western paradigms in post-secondary science education: an action research approach. *J Can Assoc Curric Stud.* 2014;10(1):77–114.
- Indigenous youth – post-secondary education and the labour market. Government of Canada. <https://www.aadnc-aandc.gc.ca/eng/1451931236633/1451932655379>. Published 2016. Accessed 8 November 2019.
- Honouring the truth, reconciling for the future. The Truth and Reconciliation Commission of Canada. <http://nccdh.ca/resources/entry/honouring-the-truth-reconciling-for-the-future>. Published 2015. Accessed 8 November 2019.
- Battiste M, Bell L, Findlay LM. Decolonizing education in Canadian universities: an interdisciplinary, international, indigenous research project. *Can J Native Educ.* 2002;26(2):82–95.
- United Nations declaration on the rights of indigenous peoples. United Nations. https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf. Published 13 September 2007. Accessed 8 November 2019.
- Pete S. 100 ways to indigenize and decolonize academic programs and courses. *Aboriginal Policy Studies.* 2016;6(1):81–89. <https://doi.org/10.5663/aps.v6i1.27455>.
- Complementary and alternative medicine. National Cancer Institute at the National Institutes of Health. <https://www.cancer.gov/about-cancer/treatment/cam>. Published 2016. Accessed 17 February 2019.
- McGibbon E, Mulaudzi FM, Didham P, Barton S, Sochan A. Toward decolonizing nursing: the colonization of nursing and strategies for increasing the counter-narrative. *Nurs Inq.* 2014;21(3):179–191.
- Schick C, Denis S. Troubling national discourses in anti-racist curricular planning. *Can J Educ.* 2005;28(3):295–317.
- Sherwood J, Edwards T. Decolonisation: a critical step for improving aboriginal health. *Contemp Nurse.* 2006;22(2):178–190.
- Sinclair R. Aboriginal social work education in Canada: decolonizing pedagogy for the seventh generation. *First Peoples Child Family Rev.* 2004;1(1):49–61.
- Gaudry A, Hancock RLA. Decolonizing Métis pedagogies in post-secondary settings. *C J Native Educ.* 2012;35(1):7–22.
- Ottmann J. Indigenizing the academy: confronting “contentious ground” *Morning Watch.* 2013;40(3–4):8–24.
- Pete S, Schneider B, O'Reilly K. Decolonizing our practice – indigenizing our teaching. *First Nation Perspect.* 2013;5(1):99–115.
- Nakata NM, Nakata V, Keech S, Bolt R. Decolonial goals and pedagogies for indigenous studies. *Decolonization: Indig Educ Soc.* 2012;1(1):120–140.
- Ragoonaden K, Mueller L. Culturally responsive pedagogy: indigenizing curriculum. *C J High Educ.* 2017;47(2):22–46.
- Pillay M, Kathard H. Decolonizing health professionals' education: audiology and speech therapy in South Africa. *Afr J Rhetor.* 2015;7(1):193–227.
- Sasakamoose J, Pete S. Towards Indigenizing university policy. *Educ Matters.* 2015;3(1) <https://journalhosting.ucalgary.ca/index.php/em/article/view/62922>. Accessed 8 November 2019.
- Chu L, Utengen A, Kadry B, et al. “Nothing about us without us” – patient partnership in medical conferences. *BMJ.* 2016;354(i3883) <https://doi.org/10.1136/bmj.i3883>.
- Admission Requirements of Canadian Faculties of Medicine. Association of faculties of medicine of Canada. http://uoitdcpmed.com/wp-content/uploads/2017/09/2018-AdmissionRequirements_en.pdf; 2018 Accessed 8 November 2019.
- Kanu Y. *Integrating aboriginal perspectives into the school curriculum: purposes, possibilities, and challenges*. Toronto, ON: University of Toronto Press; 2011.
- Toulouse P. *Integrating aboriginal teaching and values into the classroom*. Ottawa, ON: Literacy and Numeracy Secretariat; 2008.
- Tri-council policy statement: ethical conduct for research involving humans. Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada. <http://publications.gc.ca/site/eng/381622/publication.html>. Accessed 8 November 2019.