

RESEARCH ARTICLE

The case of clinical training for International Pharmacists in Canada: A comparative educational and policy analysis

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Abstract

Background: The passing rate for International Pharmacists is much lower than that of domestic pharmacy graduates in the licensing examination in Canada. This study aimed to examine differences in policies and educational infrastructure systems integrated that help shape advanced clinical training for International Pharmacists in the different provinces. **Method:** This study used a comparative policy analysis of regulations governing International Pharmacists in three provinces, including Ontario, Alberta, and British Columbia. **Results:** When examining current integration systems in these provinces, differences in clinical training period requirements become apparent. For example, Alberta and British Columbia have already started efforts towards better integration frameworks in clinical training for international pharmacists. However, there is a need for more unified and inclusive measures towards the integration of international experiences within the Canadian pharmacy practice system across all three provinces. **Conclusion:** The Canadian model lacks a clinical training period before the qualifying examination, unlike other models around the world.

Introduction

Over the past two decades, Canada has prioritised recruiting immigrants to fill needed positions in healthcare industries, including pharmacy (Immigration, Refugees and Citizenship Canada, 2018a; United Nations, Department of Economic and Social Affairs, Population Division, 2019). According to the Canadian Institute for Health, in 2011, an estimated 27.4% of pharmacists in Canada were international graduates (Hawthorne, 2013). In 2015, the “Express Entry for Immigration” programme was instituted to facilitate the immigration of skilled occupations, including pharmacists, who are among the eligible professions given priority (Immigration, Refugees and Citizenship Canada, 2018b). International Pharmacists (IPs) are pharmacists who have obtained their pharmacy degree from a university outside Canada and

are not yet recognised as licenced pharmacists (National Association of Pharmacy Regulatory Authorities, 2014). IPs coming from various parts of the world with different degrees such as Bachelor (BSc.) or Doctor of Pharmacy (Pharm.D.) have to undergo evaluation procedures separate from domestic pharmacy graduates, including document evaluation, evaluation examination, and qualifying examination to obtain their licence (Pharmacy Examining Board of Canada, 2018). The evaluation examination created and administered by the licencing body aims to evaluate the applicant’s readiness, knowledge, and proficiency as a pharmacist. Upon successful completion, IPs advance to the final qualifying examination administered by the Pharmacy Examining Board of Canada (PEBC) to be registered practising pharmacists. This examination is composed of two sections that include multiple choice questions and an

objective structured clinical examination (OSCE) based on the 2014 National Association of Pharmacy Regulatory Authorities (NAPRA) professional competencies for Canadian pharmacists at entry to practice (National Association of Pharmacy Regulatory Authorities, 2014; Pharmacy Examining Board of Canada, 2018). In 2018, according to the PEBC website, only 41.1% of IPs passed on the first try out of 2156 applications of international graduates, and 50.5% from the second attempt out of 1886 applicants, when compared to 91% for the graduates of Canadian-accredited pharmacy programmes passing from the first try from a pool of 2683 applications for 2016-2018 (Pharmacy Examining Board of Canada, 2018). This was not the case when compared to other countries, such as the United States and the UK, where IPs had better success rates (General Pharmaceutical Council, 2018; National Association of Boards of Pharmacy, 2019b).

The federal pharmacy regulatory body in Canada has not mandated advanced clinical training (CT) for IPs in hospital departments and ambulatory care settings, nor has it required that it be mandatory for IPs to complete their registration (National Association of Pharmacy Regulatory Authorities, 2019). Instead, this matter is left to provincial authorities, with little to no standardisation among them, suggesting a disconnect between policies designed to facilitate the integration of IPs into the Canadian pharmacy practice systems and current practices and policies that deny them the opportunity to become licenced pharmacists. This article focuses on the three provinces with the highest number of immigrants in 2019, i.e. Ontario (Ont.), Alberta (Alb.), and British Columbia (BC) (The Statista Country Reports, 2019). There is a lack of scholarly work on provincial differences across Canada in implementing various pharmacy educational programmes and regulatory systems to integrate IPs. Secondly, there is a gap in the literature regarding CT programmes' availability, value, and outcomes for IPs in Canada. It is hypothesised that the statistics shown above are due to barriers across Canada related to clinical experience, interprofessional interaction, and mentorship for IPs when compared to domestic pharmacy students. To the best of the author's knowledge, this study is the first to observe the policies and educational infrastructure systems that help shape advanced CT for IPs in the different provinces and the extent to which they support or exclude IPs from CT opportunities. It also examines the factors that are being considered for new policies in advanced CT for IPs in the three provinces. Therefore, this study will showcase the barriers and inequalities facing IPs across Canada. Its result could serve as the foundation for establishing a platform that informs decision-making and guides the efforts of policymakers, senior officials,

and educators in facilitating the integration of IPs into the Canadian healthcare workforce.

Methods

This article involves a comparative policy analysis of regulations governing IPs in three provinces (Yin, 2014). It focuses on policies, educational procedures, and accreditation requirements governing CT opportunities for domestic students and IPs across these provinces, involving federal and provincial actors, i.e. the state, regulatory authorities and educational pharmacy programmes (Stake, 1995; Merriam & Tisdell, 2015).

The study examined policies, laws, procedures, and regulations related to the pharmacy profession published by federal and provincial governments since 2003 that influenced CT for both domestic and IPs. This period reflects the evolution of CT in the new era, involving different actors.

First, it analysed the various policies and procedures developed by professional associations, including the Canadian Pharmacists Association (CPA), NAPRA, Canadian Council for Accreditation of Pharmacy Programmes (CCAPP), Association of Faculties of Pharmacy of Canada (AFPC), and Association of Deans of Pharmacy of Canada (ADPC) (Maxwell, 2009). Examples include the CCAPP's 2014 Annual Report and Directory of Accredited Programmes, the CPA's 2009 on a Blueprint for Pharmacy titled "*Blueprint for Pharmacy: Implementation Plan*", the CCAPP's 2018 Accreditation Standards for the First Professional Degree in Pharmacy Programmes, and the College of Pharmacists British Columbia's Registration Committee Policy (Canadian Pharmacists Association, 2009; Canadian Council for Accreditation of Pharmacy Programmes, 2014; Canadian Council for Accreditation of Pharmacy Programmes, 2020; College of Pharmacists of British Columbia, 2020). This explanatory qualitative analysis of the policies, procedures, and accreditation requirements created by the main stakeholders sought to distinguish the critical procedures and infrastructures that shape CT guidelines for pharmacy students and IPs in Canada (Creswell & Poth, 2017). Data were gathered from websites, quality assurance reports, and publicly available publications of conferences or official meetings.

Second, regulatory actors included the Alberta College of Pharmacy, the College of Pharmacists of British Columbia, the Ontario College of Pharmacists, and the PEBC (Alberta College of Pharmacy, 2019; Ontario College of Pharmacists, 2019; Pharmacy Examining

Board of Canada, n.d.). Analysing this dataset of documents, websites, and reports shed light on the federal and provincial regulatory bodies' policy shifts that shaped CT on the individual and institutional levels, reflecting the legislators' role in facilitating CT frameworks.

Third, examining the websites of pharmacy schools in the three provinces, such as the Faculty of Pharmacy at the University of Toronto, University of British Columbia, Faculty of Pharmaceutical Sciences, and University of Alberta, Faculty of Pharmacy and Pharmaceutical Sciences, offered valuable insights (Leslie Dan Faculty of Pharmacy, 2019; University of British Columbia, 2019; University of Alberta, 2022).

The study presents a snapshot of the real-life events in the licensing systems of the three provinces, focusing on the professional scope of practice, clinical framework, CT, bridging programmes, and government roles. This multifaceted approach highlights connections between various actors in the licensing process. In the realm of public policy, it provides a platform for identifying the pitfalls in the current licensing systems in the three provinces. These elements reveal systemic causal mechanisms that need revisions to facilitate the integration of IPs into the pharmacy profession, aligning with the original goals set by established policies.

Additionally, this analysis will examine the factors affecting the performance of IPs in licensing examinations, especially in relation to governmental policies, professional regulatory requirements, and academic educational structures available as they pertain to CT (Pope *et al.*, 2000).

Results

Educational policies

Educational improvements are essential for developing licensing procedures that accommodate domestic pharmacy students and IPs. Two pharmacy schools in Quebec started their Pharm.D. programmes in 2007 and 2009, respectively (Austin & Ensom, 2008). Bridging programmes were established to facilitate the transition of current students from a BSc to a Pharm.D. degree. Additionally, graduate pharmacists with a BSc were offered the opportunity to upgrade their degree through a one-year programme. Canadian pharmacy schools have mandated and standardised the number of credits, contact hours, and training periods students must complete in clinical experiences (Kehrer *et al.*, 2010). Pharmacy schools have also identified different healthcare sites and advanced patient-care departments

for experiential training, e.g. acute care, rehabilitation, paediatrics, geriatrics, chronic care, and centres for speciality populations (Canadian Pharmacists Association, 2019). Students in these clinical rotations will gain valuable experiences in several areas. Firstly, they will focus on applied therapeutics and drug therapy problems involving patient assessment, identification of patient condition, drug therapeutic plan, and patient monitoring. Secondly, students will engage in direct communication with patients to set targeted outcomes and provide medication education. Thirdly, they will develop professional communication and collaborative skills, working with other healthcare professionals to optimise patient medication plans and outcomes (Hall *et al.*, 2012; Mulherin, 2016).

Professional policies

The pharmacy profession has undergone fundamental changes over the past two decades. Consequently, pharmacy schools, regulatory bodies, and pharmacy practice institutes have had an essential and dynamic role in supporting the fast progress of the profession by implementing policies and different educational frameworks (Canadian Pharmacists Association, 2019). The major Canadian provincial regulatory bodies are associate members of the National Association of Boards of Pharmacy, which also includes fifty American states and the Bahamas. Each of these regulatory authorities is to regulate the pharmacy practice in accordance with relevant legislation and regulations. The CPA is the professional authority in Canada, advocating for the national interests of the profession and the health of Canadians. It collaborates with the American Pharmacist Association (APhA) to represent the Canadian pharmacists' perspective. Both institutions uniquely serve as essential drivers of professional decision-making in Canada. In coordination with the CPA, the National Association of Boards of Pharmacy (NABP) disseminated mandates in 2006 to shift the professional scope of pharmacy practice within Canada and the United States towards a patient-centred ideology. Subsequently, Canada established a task force in 2007 to define and design the framework necessary for the successful introduction of the Pharm.D. degree to Canadian pharmacy schools (Canadian Pharmacists Association, 2019).

Pharm.D. is a professional doctorate degree awarded to students after the completion of a four-year professional programme and a minimum of two to four years of undergraduate study. The task force set out by the CPA represented stakeholders in pharmacy practice, education, and various regulatory bodies of the profession to address challenges in the shift from a drug-centred to a patient-centred framework in pharmacy. This task force defined new requirements for obtaining

the pharmacy licence, including the completion of the national certification examination (administered by the PEBC), the implementation of structured practical training (SPT) within these prerequisites, and passing a provincial jurisprudence examination (Association of Faculties of Pharmacy of Canada, 2010).

Between 2010 and 2014, several developments among professional bodies, such as CPA, AFPC, ADPC, CCAPP, and NAPRA, resulted in designating the Doctor of Pharmacy (Pharm.D.) as the entry-level professional degree at Canadian Universities. Accordingly, NAPRA issued a revised set of Professional Competencies for Canadian Pharmacists to Practice, aligning the clinical competencies in all three provinces with the general recommendations of the International Pharmaceutical Federation's international standards, tailored to meet local provincial needs (International Pharmaceutical Federation, 2012; International Pharmaceutical Federation, 2014). These new requirements mandated a minimum of eight weeks (320 hours) of community-setting practice and 36 weeks (1440 hours) of advanced pharmacy practice experiences covered during the fourth year of the Pharm.D. programme. These unique CT experiences in various clinical training sites enable domestic pharmacy students to engage in interprofessional interactions with physicians of diverse specialities, nurses, and other healthcare professionals (Association of Faculties of Pharmacy of Canada, 2010).

Regulatory policies

Established in 1995, NAPRA is a voluntary association of provincial and territorial pharmacy regulatory bodies. NAPRA's member organisations regulate the practice of pharmacy and the operation of pharmacies in their respective jurisdictions across Canada. The PEBC is a national certification body for the pharmacy profession in Canada and was established under the act of parliament in 1963. Typically, the licensing procedures for Ips, as set by the federal regulatory authority PEBC, can be divided into three distinct steps. First, the background credentials check is designed to evaluate the applicant's basic educational background and whether it meets the minimum threshold of practical and theoretical knowledge necessary to proceed to the next step. The second step is the evaluation examination created and administered by the licencing body to assess the applicant's readiness, knowledge, and proficiency as a pharmacist. If the applicant completes these steps, they are then required to undergo a final qualifying examination. Passing this final exam grants graduating pharmacists the pharmacy licence, allowing them to practice pharmacy as fully-fledged licensed professionals within society. Additional requirements, such as Jurisprudence Examinations, language proficiency tests, and other administrative procedures, should be completed after the examinations (Table I).

Table I: Licensing procedures for international pharmacy graduates across the three provinces

Step	Component	Ontario	Alberta	British Columbia
1.	Document evaluation		Pharmacist gateway Canada, including credential check, practice experience, and language proficiency	
2.	Evaluation examination		PEBC Evaluation examination	
	Training	International Pharmacy Graduate (IPG) programme at the Leslie Dan Faculty of Pharmacy within the School of Continuing Studies at the University of Toronto 30 weeks of study split into two terms entitled Canadian Pharmacy Skills 1 (CPS 1) and Canadian Pharmacy Skills 2 (CPS 2).	Alberta College of Pharmacy (regulatory authority) Structured Practical Training (SPT) Alberta: 1000 hrs Three modules of particle training in a pharmacy practice setting	Structured Practical Training in the Division of Continuing Pharmacy Professional Development within the Faculty of Pharmaceutical Sciences at the University of British Columbia theoretical and practical training components delivered over 24 weeks (500 hrs)
3.	Qualifying examination	Structured Practical Training (SPT)** The Practice Assessment of Competence at Entry (PACE) Ontario 3 weeks	Passing PEBC qualifying examination part 1 MCQ, part 2 OSCE*	

Note: Jurisprudence Examinations are part of the licensing procedures and have to be completed after the examinations, with other administrative procedures. *OSCE: Objected Structured Clinical Examination; **The training certificate obtained after completing SPT is subjected to expiration after two years, and the SPT is not mandated by the regulatory authorities to be undertaken before the qualifying examination.

The first step is common to all the provinces, but the remaining two steps and their details, including the sequence, vary among the three provinces. Notably, the CT undertaken by IPs within these three systems has several differences. Firstly, the timing of the training differs, as it can be conducted before or after the qualifying examinations. Secondly, the duration of rotations is different, with Alberta requiring IPs to complete 1000 hours of CT. Thirdly, the setting in which the training takes place also vary (community or hospital), with some provinces like Ontario emphasising community-based programmes. Except for Alberta, IPs undergo both stages of the examinations (evaluation and qualifying) with no official integration into the practice.

Bridging programmes and clinical training

In 2000, Ontario established the first bridging programme, the International Pharmacy Graduate (IPG) programme, at the Leslie Dan Faculty of Pharmacy within the University of Toronto (Austin & Rocchi Dean, 2006). Since 2015, the Ontario College of Pharmacists has made it mandatory for IPs to enrol in the bridging programme, especially if they have failed the qualifying examination on their first attempt. Currently, the IPG programme at Leslie Dan is administered by the School of Continuing Studies at the University of Toronto. As stated on its website, the programme's primary objective is to equip learners with the patient care skills necessary to obtain their license to practice in Canada. To qualify for the IPG programme, IPs must pass the evaluation examination and meet minimum requirements for English proficiency, demonstrated through an objective English language proficiency test like the International English Language Testing System (IELTS). Applicants are required to achieve a minimum score of six in all four modules, i.e. speaking, writing, listening, and reading, with an overall score of seven. The programme costs 13,650 CAD, payable by each student, and no financial aid is currently available. The programme is scheduled twice a year, September to April and April to October.

The programme spans 30 weeks of study, split into two terms: Canadian Pharmacy Skills 1 (CPS 1) and Canadian Pharmacy Skills 2 (CPS 2). Uniquely, learners can choose between two modes of programme delivery: full-time (on-campus) or hybrid module, where learners receive their blocks (courses) online but are required to attend specific on-campus activities, such as the first week of orientation and term examinations. Over the two terms, learners are offered several courses to enhance their basic knowledge of pharmacotherapy and integrate problem-solving skills. According to the programme's website, learners 'assume responsibility for the common and more complex issues arising in the

management of a patient's drug therapy'. The curriculum also includes modules on various topics, such as Jurisprudence, Introduction to Pharmaceutical Calculations, Orientation to the Canadian Healthcare System, and Culture and Context. These modules help IPs get familiar with the Canadian healthcare system. Beyond theoretical classes, the programme offers practical courses to equip the learner with the skills needed to identify, prevent, and resolve drug-related problems. Practical courses involve simulated practice-based interactions with standardised patients and clinical instructors, providing learners with patient care, decision-making, and documentation competencies. Additionally, learners are introduced to pharmacy practice management through familiarisation with pharmacy management software. They are also trained on tasks such as receiving, processing, and verifying the accuracy of written and verbal prescriptions.

In early 2018, Ontario introduced the Practice Assessment of Competence at Entry (PACE) programme, which has become mandatory for licence completion for IPs. This programme was designed to assess the entry-to-practice competence of pharmacist applicants, aligning with the NAPRA entry-to-practice competencies for pharmacists. As part of PACE, IPs are required to undertake a 70-hour placement within a pharmacy setting. The PACE programme comprises a four-stage assessment procedure to evaluate the readiness of IPs to practice independently. This evaluation takes two to three weeks, during which an assessor uses assessment criteria to gauge the IPs' competence. A recently established pilot programme (P4T) of 4-12 weeks offers practical training with mentorship for IPs and can be taken before the qualifying examination (National Association of Pharmacy Regulatory Authorities, 2021)

Similar to Ontario, the College of Pharmacists of British Columbia is the regulatory body for pharmacists. IPs are mandated to complete the SPT through the Canadian Pharmacy Practice Programme (CP3) by enrolling with the Division of Continuing Pharmacy Professional Development within the Faculty of Pharmaceutical Sciences at the University of British Columbia (University of British Columbia, 2022). The programme consists of theoretical and practical training components delivered over 24 weeks. The applicant must demonstrate English language proficiency by completing the English Language Proficiency (ELP) requirements. Applicants must also provide valid authorisation to work in Canada, which can be confirmed through permanent residency documents, a permanent resident card, or a work permit. The programme costs 11,500 CAD, in addition to a 1000 CAD practice fee and a 250.00 CAD non-refundable application fee, which can be paid in two instalments.

Financial aid options are available to help pay the fees through local banks. According to the programme's mission statement, "the CP3 programme is a comprehensive bridging programme designed to help IPs achieve the skills and competencies required to practice pharmacy in Canada". The skills and competencies needed for practice are the same ones tested in the PEBC Qualifying Exams, and the programme graduates will be prepared to pass these exams.

The theoretical component is delivered on a full-time basis over the first 12 weeks. It comprises five courses covering therapeutics, communications, practice skills lab, patient dialogue skills, and a health care system overview. These courses provide fundamental knowledge through drug therapeutic problem practice and therapeutic thought processes. The practical component exposes students to all aspects of prescription dispensing, role-plays involving patient counselling, and various scenarios surrounding topics of self-care, ethics, business, administration, and interprofessional development. A unique feature of the programme is the "Getting Ready Mock-OSCE", a one-day session that provides students with resources, strategies, and helpful approaches in preparation for the national pharmacy licensing examinations. The Mock-OSCE allows students to engage in sample role-play sessions and receive feedback on their performance. The second part of the programme comprises 12.5 weeks (500 hours) of the SPT, providing students with Canadian pharmacy practice experience. During this period, students are required to complete 500 hours working in a community pharmacy and fulfil various assignments within their practice setting.

The Alberta College of Pharmacy (regulatory authority) has recently introduced and mandated a SPT for IPs. This training period consists of three modules and covers 1000 hours of practical training in a pharmacy practice setting. IPs are given hourly wages in exchange for the number of hours worked in the pharmacy, and the training programme is conducted by the regulatory authority.

Unlike other provinces, Alberta's bridging programme is not a mandate for licensing. IPs may enrol in the SPT before taking the PEBC qualifying exam and go through the programme for a maximum of two years with an option to extend for an additional year if needed. The training programme enables the applicant to apply previously acquired academic knowledge and skills to a practical setting, aligning with the competencies outlined in the NAPRA's Professional Competencies for Canadian Pharmacists at Entry to Practice. IPs have to complete the jurisprudence examinations before registering for the STP. They are also responsible for

finding a preceptor who can supervise their work, which is a minimum of 20 hours per week and a maximum of 44 hours per week. The preceptor must be registered in the Alberta College of Pharmacy's clinical register for at least two years before the preceptorship and may not have more than two interns under their preceptorship at any given time. The preceptor must have completed an accredited training programme and hold valid CPR and first aid certifications. The programme consists of three levels. During the first level (first 450 hours), the learner demonstrates competencies related to direct patient care, i.e. communication, patient education, ethical, legal, and professional responsibilities, and product distribution. In the second level (second 450 hours), IPs are required to demonstrate competencies in judgment and professionalism. They also become more involved in the supervision of other staff members in the dispensary. This period covers intraprofessional and interprofessional collaboration, quality, safety, health promotion, and communications in a practice setting, in addition to the professional competencies mentioned above. In the third and final level (last 100 hours), the learner is expected to work independently, acting as the "in-charge pharmacist" while managing the activities of the dispensary and supervising other staff members. The learner completes the SPT after satisfying the minimum number of hours in each of the three levels and demonstrating competency in all the expected learning outcomes as assessed by the preceptor's ratings.

Discussion

The emphasis on the clinical experience in pharmacy schools in the three provinces has shaped their curriculum design, allowing domestic students to achieve the required competencies outlined by regulatory bodies for a fast entry into practice. The CT has been made possible through collaborations, professional networks, and mutual agreements with pharmacy practice institutes, including hospitals that provide clinical training opportunities for domestic students (Scheckelhoff *et al.*, 2008). However, the formulation of this clinical experience often privileges domestic pharmacy students over IPs in various ways and is the core of inequality among the three provinces. In general, providing this learning experience underscores the importance and necessity of experiential clinical learning to enrich the practical experience for domestic graduates and achieve the competencies required by regulatory bodies to pass the licensing examination. This structure also enables domestic students and graduates to approach the final

examination for licensing immediately after the completion of their clinical training and study, thus reducing the cost and time needed to pass. This approach is in stark contrast with the experience of IPs, for whom the structure of CT, if available (especially in Ontario), differs considerably. Moreover, additional regulatory requirements lead to an increased financial burden and an uncertain amount of time commitment for IPs. Each province has its unique design and vision for what this clinical experience should entail, resulting in variations in the structure, access, and clinical outcomes achieved during this period.

Alberta and British Columbia exhibit a more accommodating stance towards the concept of CT for IPs, as evidenced by the availability of their respective training programmes. However, compared to the amount and depth of training provided to domestic pharmacy students, the training process for IPs still falls short in hands-on experience in various hospital departments. In Alberta and British Columbia, training sites for IPs are restricted to the community setting as most IPs lack an established professional network and domestic experience to access hospital pharmacies or advanced patient care facilities. Hence, despite the efforts made to support IPs in Alberta and British Columbia, these two provinces still lag in duration, mentorship diversity, and interprofessional interaction when compared to standards present in other countries (General Pharmaceutical Council, n.d.; National Association of Boards of Pharmacy, 2019a; Australian Pharmacy Council, 2019).

In Ontario, IPs are expected to complete identical learning requirements as domestic students, but unlike the latter, they are not offered the same immersion opportunities within the profession. Additionally, Ontario has the highest number of teaching hospitals and clinical training facilities affiliated with its pharmacy schools (Statistics Canada, 1987). Each of these facilities offers placement opportunities for IPs to gain practical clinical experience. Alternatively, IPs can be assigned to existing community pharmacies, similar to the practice in Alberta and British Columbia.

Clinical experiences across all pharmacy schools in Canada allow domestic students to deal with real-life situations and play an active role as part of the pharmacy team. Domestic students can interact with patients and offer advice regarding their medication appropriateness, efficiency, and side effects. When the students have progressed through their training, they can take on more advanced roles that focus on patient-centred care, including patient assessment and professional guidance related to health issues, such as asthma, diarrhoea, and joint pain. For example, students can decide on drug appropriateness for

patients with multiple chronic diseases and can initiate, modify, and monitor patients' drug therapy plans. They are even allowed to administer certain specialised medications under the supervision of the pharmacist in charge. On the other hand, IPs do not have the same rigorous experience.

In Alberta, IPs can learn and gain more skills related to dispensing medication than their counterparts in other provinces because of the extended scope of practice. However, this experience is restricted to community settings, which limits its richness. In British Columbia, IPs can practise some acquired knowledge gained from the theoretical courses; however, the constrained time of 12 weeks is insufficient compared to the two years allocated to domestic students to master the skills they are required to gain.

Therefore, the roles carried out by IPs are limited to preparatory and superficial interactions with patients, particularly when examining the bridging programmes in Ontario, where some opportunities are presented through studentships and internships but are often of short duration. In Canada, domestic students benefit from mentorship and interprofessional interaction during their clinical training under the guidance of trained preceptors. These preceptors come from various backgrounds, including academia and diverse specialities across the pharmacy practice spectrum. During their clinical experience, domestic pharmacy students are exposed to several other healthcare professionals, such as doctors and nurses, who participate in their learning process. In contrast, IPs' experiences are predominantly confined to community settings, with access primarily limited to the pharmacist in charge. Subsequently, domestic students are advantaged over IPs because, when applying for hospital placements, domestic students may have already initiated building their interprofessional relationships during their degree programme.

Conclusion

The Canadian model differs from some international models by lacking a clinical training period before the qualifying examination. This paper highlights the multiple mechanisms that systematically exclude IPs from opportunities available to domestic students. It underscores the necessity for revising these mechanisms to facilitate the integration of IPs into the pharmacy profession, aligning with the original goals mandated by established policies.

Conflict of interest

The author declares no conflict of interest.

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