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Pharmacy practice and First Peoples health equity: a scoping review protocol

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ABSTRACT

Objective: The objective of this review is to examine and describe global pharmacy practice strategies and interventions designed to achieve health equity for First Peoples.

Introduction: Access to medicines and quality use of medicines is critical to achieving health equity for First Peoples. Pharmacists are uniquely placed to lead the charge in transforming current health systems, reducing health disparities, and bolstering the movement toward health equity.

Inclusion criteria: Global studies describing pharmacy practice strategies and interventions designed to achieve health equity for First Peoples will be considered for inclusion in the review. Studies relating to all areas of pharmacy practice, including community and clinical pharmacy, social, administrative, pharmaceutical sciences, practice, teaching, research, advocacy, or service relevant to the review's objective will also be considered for inclusion. The types of studies to be included are qualitative, quantitative, and mixed methods systematic reviews, scoping reviews, literature reviews, and gray literature.

Methods: This review will be conducted in accordance with JBI methodology for scoping reviews. Embase, MEDLINE, Scopus, CINAHL, and gray literature sources will be searched from 1998 to the present. Titles, abstracts, and full texts will be screened against the inclusion criteria. Strategies and interventions identified in the included reviews will be mapped to a published framework, outlining actionable strategies for pharmacy practice inclusion in sustainable efforts to achieve health equity. Qualitative content analysis and descriptive statistics will be utilized with data presented in tables, accompanied by a narrative.

Review registration: Open Science Framework osf.io/qa64b

Keywords: First Peoples; health equity; indigenous; pharmacists; pharmacy practice

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Introduction

The World Health Organization states that First Peoples across the globe have a pronounced ncrease in health risk, inferior health outcomes, and greater unmet requirements for health and social services.[1] The terminology *First Peoples* is used instead of *Indigenous* in order to be respectful and acknowledge the diversity of indigenous cultures and identities;[2] "although there is no single definition of Indigenous peoples, an ancient relationship with a defined territory and ethnic distinctiveness are two distinguishing features."[3(p.510)] According to Amnesty International, the world has 476 million First Peoples spread across 90 countries, with 70% located in Europe and Asia.[4] System inequities and social determinants of health (SDOH) are attributed to First Peoples, who experience higher rates of obesity, diabetes, hypertension, cardiovascular disease,

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The authors declare no conflict of interest.

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and chronic renal failure than non-Indigenous people, which is an indicator of First Peoples health not being equitable.[5] Health equity is defined as "everyone having a fair and just opportunity to be as healthy as possible; it requires the removing of obstacles to health, the SDOH, such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care,"[6(p.2)] all of which influence health inequities.[7] Health inequities are unfavorable differences in people's health status and outcomes because of avoidable or discriminatory causes.[7]

In Australia, as per the National Aboriginal and Torres Strait Islander Health Plan 2021–2031, "the strengths of Aboriginal and Torres Strait Islander cultures have continued to evolve and thrive despite the ongoing impacts of colonization, systemic discrimination and intergenerational trauma, including through the Stolen Generations"[8(p.2)] and First Peoples health is a national priority. Access to medicines and the quality use of medicines is seen as critical to achieving health equity for First Peoples in Australia.[8] In New Zealand there is consensus that better understanding of how to improve medicine management for First Peoples is urgently required to eliminate health inequity.[9] Queensland is the first Australian state to implement a First Peoples health equity agenda, which became a legislative requirement in 2020, for Queensland's hospitals and health services to co-develop and co-implement a First Peoples health equity strategy.[10] The aim is to stimulate a shared agenda to improve First Peoples health outcomes, experiences, and access to care across the health system.[11] While Queensland is the first Australian state to legislate a First Peoples health equity agenda, this is an urgent global issue, as evidenced by the World Health Organization supporting and promoting the mandate of the United Nations Permanent Forum on Indigenous Issues within the United Nations system.[1]

Notwithstanding major organizations, notably the Institute for Healthcare Improvement in the United States, pushing for health equity through "internal dismantling of institutional racism, implicit bias and externally partnering with communities to achieve optimal patient outcomes,"[12(p.4)] "pharmacy has not always been centred in many of these discussions."[13(p.383)] As an example, in the United States, the emergence of initiatives to manage the SDOH within clinical practice aims to help achieve health equity as part of the national strategy Healthy People 2030,[14] and until very recently, guidance was only available for multidisciplinary clinicians, such as physicians, nurses and social workers, and not pharmacists.[15]

Medicines are the most common tool used in health care[9] and evidence suggests substandard medication management leads to inadequate maintenance of chronic disease states, resulting in inflated hospital admissions, morbidity, and mortality for First Peoples.[16] There is evidence of barriers to First Peoples accessing medicines and for the quality use of medicines in Australia, Canada, New Zealand, and the United States,[17] which may be extrapolated to Asia and Europe. Barriers include access to medications for financial reasons, geographical distance to health services, unfavorable interactions between patient and clinician, polypharmacy and/or complex medication regimens, as well as inadequate health care systems.[16] Culture, language, and health policies have also been cited.[5] Implemented strategies and interventions to achieve health equity for First Peoples by addressing these barriers include collaborative models, such as integration of non-dispensing pharmacists into First Peoples community clinics, culturally safe home medication review services, and cultural safety programs for pharmacists and staff, all of which play a vital role in improving First Peoples quality use of medicines.[16–18]

The connection between SDOH, medication use, and health outcomes has been emphasized by Osae *et al.*,[19] with pharmacists promoted as unique in their position to lead and influence the transformation of current health systems to achieve health equity.[20] Kiles *et al.* also suggest that because pharmacists have multilayered interactions with patients, there is scope to expand the pharmacist's role to recognize social risk factors and address SDOH as causes of health inequities; they have taken the step of defining a framework for this with actionable strategies proposed at the patient, practice, and community level (Figure 1).[15] A pharmacy practice intervention or strategy at the patient level might be providing culturally sensitive patient education; at the practice or system level, delivery of an immunization program; and at the community level, an endeavor involving a community partnership.

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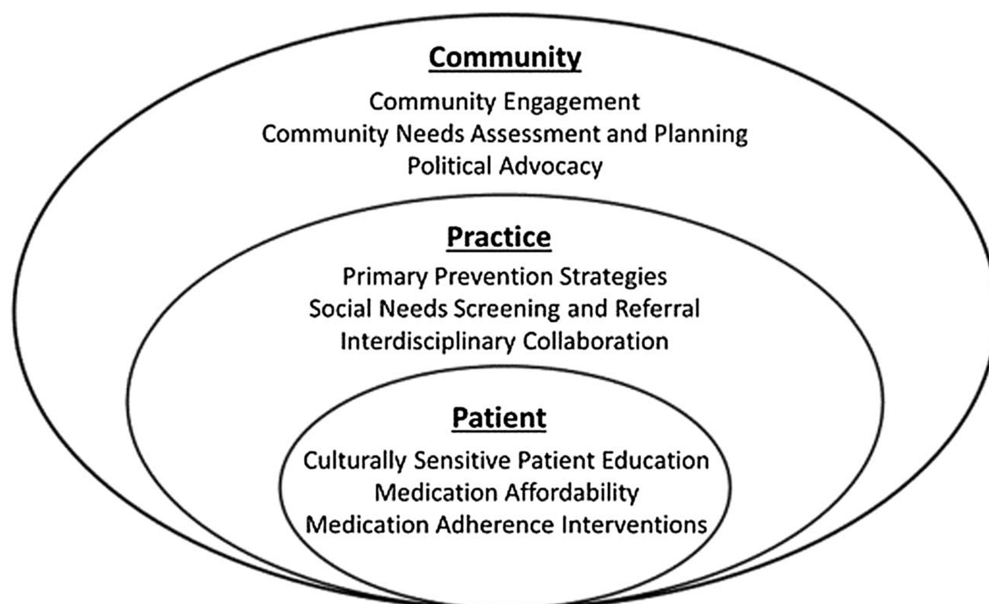

Figure 1: The role of the pharmacist in impacting social determinants of health at the community, practice, and patient level by Kiles *et al.*[15] Reproduced with permission.

However, there is very little known about pharmacy practice strategies and interventions designed to achieve health equity for First Peoples. A review describing and examining the applied pharmacy practice strategies and interventions across the globe is lacking and urgently needed to understand the profession's current position and guide transformation in this space. A scoping review has been chosen as the appropriate methodology as our study aims to map the identified strategies and interventions against the pharmacy-specific framework defined by Kiles *et al.*[15] (Figure 1). The Kiles *et al.* framework[15] is the only known framework to articulate and define actionable pharmacist-specific strategies and interventions demonstrating how pharmacists can contribute at the patient, system, and community level to achieve health equity. The framework targets both the social and structural determinants of health and, while not specifically designed for achieving health equity for First Peoples, it aligns with First Peoples paradigms and is considered translatable by the authors. It is worth noting the framework's proposed actionable strategies and interventions are not an exhaustive list and this review may identify a wider range of applied pharmacy practice interventions and strategies in relation to achieving health equity for First Peoples. This review will also identify any outcomes measures reported to assess strategy or intervention impact, including how these were measured, and enablers and barriers to implementation to inform future endeavors in this space.

An initial search of MEDLINE (Ovid), the Cochrane Database of Systematic Reviews, and the JBI Evidence-based Practice Database was conducted, and no current or in-progress systematic or scoping reviews on the topic were identified. The scoping review of literature on pharmacist practice and health-related disparities by Wenger *et al.* briefly mentions racialized groups; however, the dominant identified themes were pharmacist engagement with patients suffering mental illness or patients who use injectable street drugs.[21] This work is fundamentally different from our proposed review. We will examine a wider concept of pharmacy practice encompassing all pharmacy disciplines and fields, whereas Wenger *et al.* focused on the individual pharmacist and their practice. We will also identify strategies and interventions designed to achieve health equity for First Peoples.[6]

Review questions

What pharmacy practice strategies and interventions designed to achieve health equity for First Peoples have been applied across the globe?

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i) What categories of the framework by Kiles *et al.*[15] do the strategies and interventions align with?
ii) What outcomes have been reported to measure strategy or intervention impact and how were they measured?
iii) What were the enablers and barriers to applying the strategy or intervention?

Inclusion criteria

Participants

Studies with participants who self-identify as First Peoples, irrespective of gender, age, or location, will be considered. In recognition that First Peoples self-identify in diverse ways, various terms will be used, including but not limited to, *Indigenous, Aboriginal, Māori, Torres Strait Islander, First Nations, Native Peoples,* and *American Indians*.[22] We will include studies pertaining to First Peoples, their families, or communities.

Concept

The concept of interest is applied pharmacy practice strategies and interventions aimed at achieving health equity for First Peoples. We define *pharmacy practice* as per an international conceptual model for pharmaceutical practice,[23] which includes the disciplines of social and administrative sciences, community pharmacy, clinical pharmacy, and pharmaceutical sciences; and the acts of practice, teaching, research, along with advocacy and service. This work will align to the Joint International Pharmaceutical Federation/World Health Organization Good Pharmacy Practice Guideline,[24] which defines good pharmacy practice as "the practice of pharmacy that responds to the needs of the people who use the pharmacists' services to provide optimal, evidence-based care."[24(p.3)] Strategies and interventions may be multi-faceted; for example, a pharmacogenomic research strategy designed to achieve health equity for First Peoples is community-based participatory research.[25] An individual community-based participatory research project tailored to a specific community's needs will be considered an intervention. The enablers and barriers to implementation of a strategy or intervention will be considered from both the First Peoples and pharmacy perspective. In recognition of the fact that the term *health equity* is widely used but not commonly understood,[6] and to capture as wide an array of literature as possible, the terms *inequality, social determinants of health, health disparities* and *health inequities* will also be included.

Context

This is a global review and international literature from any cultural or geographical context meeting the inclusion criteria will be considered. The identified pharmacy practice strategies, interventions, and level (patient, system, or community) will be mapped to the Kiles *et al.* framework.[15]

Types of sources

This scoping review will consider qualitative, quantitative, and mixed methods systematic, scoping, and literature reviews. Information sources will be considered from all study designs or types to enable detection and mapping of all the admissible existing research. Gray literature will be included and opinion pieces and editorials excluded.

Methods

The scoping review will be conducted in accordance with the JBI methodological guidance for scoping reviews[26] and will utilize the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) reporting guideline and checklist.[27] This scoping review protocol is registered with Open Science Framework (osf.io/qa64b).

Search strategy

The search strategy was developed in consultation with a university librarian experienced in systematic and scoping reviews; consultation will continue throughout the scoping review. An initial search of MEDLINE (Ovid) and Google Scholar was undertaken to identify relevant sources on the topic. Title and abstract text words from these sources, along with index terms describing the studies, were utilized to develop a complete search strategy for MEDLINE (Ovid; Appendix I). Title and abstract screening of this primary search identified 15 studies eligible for the next stage of screening, which is the examination of the full text against the inclusion criteria. The search strategy will be adapted to accommodate the requirements of each database. Reference lists of studies included in the review will be screened for additional sources. If any systematic, scoping, or literature reviews are identified in the search, then

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pertinent studies found within them will be extracted and analyzed independently.

Although the origins of health equity can be found in the mid-19th century, it was not until 1999 that the International Pharmaceutical Federation and the World Health Organization jointly published the first good pharmacy practice guideline.[24] This coincided with a major practice change for pharmacists, transitioning from just compounding/manufacturing and dispensing drug products to an expanded, patient-centered role, which includes direct patient care activities and education.[28] Taking these events into consideration, this scoping review will search for sources published from 1998 to the present day. As this is a global review, there will be no language limit, with translation services to be accessed, including utilization of Google Translate, if required. MEDLINE (Ovid), CINAHL (EBSCOhost), Embase (Elsevier), and Scopus databases will be searched. ProQuest (all source types) and relevant First Peoples' databases, including, but not limited to, the Indigenous Studies Portal, Informit.org, Native Health Database, and Australian Indigenous HealthInfoNet, will be searched for unpublished gray literature.

Study selection

After the search is complete, identified citations will be transferred into EndNote v.20 (Clarivate Analytics, PA, USA) where duplicates will be removed. Next, citations will be uploaded into the JBI System for the Unified Management, Assessment and Review of Information (JBI SUMARI; JBI, Adelaide, Australia) for study screening, with studies that meet the predefined inclusion criteria then selected for inclusion. Study screening will occur in 2 parts: first, we will screen titles and abstracts for key text words, and second, the full text of potentially relevant sources will then be examined in detail against the inclusion criteria. Two reviewers (MR, KM) will independently conduct study screening and selection. Where uncertainty occurs, a third reviewer (KC) will undertake screening to reach a majority decision. A pilot step, at both title and abstract and full-text screening stages, will be undertaken by the 2 independent reviewers using 2 or 3 source results, as recommended by JBI.[29]

Recording and reporting will detail the reasoning for exclusion of full-text sources. Search results and study inclusion processes will be fully reported in the scoping review and presented in a PRISMA flow diagram.[27]

Data extraction

Data containing details pertinent to the participants, concept, context, culture, geographical location, study methods, and findings significant to the review questions and review objective will be extracted from the included papers. Two reviewers (MR, KM) will independently extract this data using a modified JBI data extraction tool[26,29] (Appendix II). A sample data extraction has been conducted (Appendix III). The 2 reviewers will meet regularly to discuss issues encountered or required amendments of the data extraction tool as per JBI guidance.[30] If there is disagreement between reviewers, a third reviewer (KC) will be consulted to provide a majority decision.

Data analysis and presentation

This scoping review will map key identified strategies and interventions to the Kiles *et al.* pharmacy-specific framework,[15] which traverses the full range of pharmacy practice, providing practical examples of definable strategies and interventions that contribute to achievement of health equity. It is acknowledged that the framework is nation-specific; however, the authors believe the underlying philosophies render it globally transferable. A numerical analysis utilizing descriptive statistics will be used to describe the range, type, and distribution of included studies, as well as the reported outcomes to measure strategy or intervention impact and type of measurement. A basic qualitative content analysis involving an inductive approach[30] will be used to map key concepts relating to enablers and barriers of implementation. Analyzed data will be presented using tables or conceptual presentation styles to aptly communicate the scoping review's objective. This will be accompanied by a narrative detailing the correlation with the review objective and questions.

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and Hinterland Hospital and Health Service for their guidance and inspiration.

This scoping review will contribute to a doctor of philosophy (health sciences) for MR.

Declarations

VW identifies as a Gugu Badhun woman (Valley of Lagoons/Ewan Country) and is the cultural lead, providing advice and leadership to the other authors. KC and ST work on Bindal and Wulgurukaba lands; MR and KM work on Gimuy-walubarra yidi lands; and AC works on Mbabaram lands. We acknowledge Aboriginal People and Torres Strait Islander People as the first inhabitants of the Australian nation and as the Traditional Custodians of the Australian lands where we work.

Author contributions

VW provided cultural advice and leadership for this protocol and any work associated with it. VW, MR, KC, and ST contributed to the design of the scoping review. All authors contributed to the writing of the manuscript.

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Appendix I: Search strategy

MEDLINE (Ovid)
Date searched: October 8, 2023

#	Query	Records retrieved
1	"Closing the gap".mp.	1559
2	exp Health Services Accessibility/ or exp Healthcare Disparities/ or exp Health Inequities/ or exp Right to Health/ or exp Social Justice/ or exp "Social Determinants of Health"/ or exp "Delivery of Health Care"/ or Health Status Disparities/ or exp "Health Services Needs and Demand"/ or ("indigenous health" or "inequality" or "equity" or "health equity" or "social determinants of health" or "health disparities" or "inequities" or "disparities" or "healthcare disparities" or "social determinants" or "indigenous health services" or "health service accessibility" or "health services accessibility" or "health inequities" or "right to health" or "social justice" or "delivery of healthcare" or "health status disparities").mp. [mp = title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]	1,361,233
3	exp Pharmacists/ or exp Pharmaceutical Services/ or exp Pharmacy Service, Hospital/ or exp Pharmacy/ or exp Pharmacies/ or exp Medication Systems/ or pharma*.mp. [mp = title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]	4,404,751
4	"Medication systems".mp. [mp = title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]	4625
5	3 or 4	4,404,788
6	exp "Native Hawaiian or Other Pacific Islander"/ or exp Indigenous Peoples/ or exp American Native Continental Ancestry Group/ or exp Health Services, Indigenous/ or ("Maori*" or "Aborigin*" or "Torres Strait Islander" or "ATSI" or "First People" or "First Peoples" or "First Nation" or "First Nations" or "First Australian" or "First Australians" or "indigen*" or "indigenous people" or "indigenous peoples" or "indigenous Australian" or "indigenous Australians" or "central American Indians" or "north American Indians" or "Indigenous Canadian" or "Indigenous Canadians or Inuit OR Inuit's OR American indian OR American Indians or Alaska natives" or "natives" or "Native Peoples ").mp. [mp = title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]	91,307
7	1 or 2	1,362,358
8	5 and 6 and 7	576
9	limit 8 to (yr = "1998 -Current")	511

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Appendix II: Draft data extraction tool

Evidence source details and characteristics	
Citation details: journal, volume issue, pages	
Title	
Author	
Year of publication	
Origin/country of origin (where the source was published or conducted)	
Aims/purpose/context	
Participants (eg, age, sex and number)	
Methodology/methods	
Strategy or intervention type, comparator, and details of these (eg, duration of the intervention), if applicable	
Outcomes and details of these (eg, how measured), if applicable	
Key findings (details/results) extracted from source of evidence (in relation to the concept of the scoping review)	
Categories of strategy or intervention mapped to Kiles *et al.*[15] framework	
Patient	
Culturally sensitive patient education	
Medication affordability	
Medication adherence interventions	
Other	
System	
Primary prevention strategies	
Social needs screening and referral	
Interdisciplinary collaboration	
Other	
Community	
Community engagement	
Community needs assessment and planning	
Political advocacy	
Other	
Intervention outcomes or strategy objectives	
Outcome measures	
Objective measures	
Was impact measured?	
How was impact measured?	

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Enablers and barriers to applying the strategy or intervention	
Enablers	
Barriers	

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Appendix III: Data extraction example

Evidence source details and characteristics	
Citation details: journal, volume issue, pages	Currents in Pharmacy Teaching and Learning 14: 1448–1460
Title	Building practice-informed indigenous health curricula: a systematic review of pharmacy services for indigenous peoples
Author	Mojan Fazelipour, Larry Leung, Jason Min, Teresa (Sm'hayetsk) Ryan
Year of publication	2022
Origin/country of origin (where the source was published or conducted)	Canada
Aims/purpose/context	This review aims to inform pharmacy Indigenous cultural safety curriculum development by presenting data on the opportunities and challenges underlining the existing Indigenous-specific pharmacy practices. The aim is for this information to inform pharmacists, educators, and faculty members in understanding and delivering optimal care and education engaging Indigenous insights and perspectives at systems and curricular levels.
Participants (eg, age, sex and number)	First Peoples receiving pharmaceutical care
Methodology/methods	Clinical systematic review
Strategy or intervention type, comparator, and details of these (eg, duration of the intervention), if applicable	Comprehensive search of 4 databases: PubMed, CINAHL, Embase and Web of Science. Gray literature from Canadian Institute for Health Information Public health Agency of Canada, Canadian Agency for Drugs and Technology in Health, Native Health Databases Des LIBRIS, and Informit Indigenous Collection. The review focused on thematic analysis of 14 qualitative or mixed-method studies to collate data on attitudes, beliefs, and perspectives of Indigenous peoples, their health care providers, and/or pharmacists in terms of experience with pharmacy services. The number of studies from Australia, Canada, and the US were 9, 3, and 2, respectively. Themes were combined from studies that reported on the same program.
Outcomes and details of these (eg, how measured), if applicable	This review reported the following study outcomes important to its objective: i) Provision of culturally competent and language concordant pharmacy services ii) Building trust iii) Expanding pharmacists' roles on interprofessional teams iv) Understanding health literacy and education contexts v) Acknowledging the diversity of First Peoples culture vi) Integrating cultural safety training in pharmacy curricular vii) Incorporating regular follow-up and community outreach strategies
Key findings (details/results) extracted from source of evidence (in relation to the concept of the scoping review)	
Categories of strategy or intervention mapped to Kiles *et al.*[15] framework	
Patient	
Culturally sensitive patient education	
Medication affordability	
Medication adherence interventions	
Other	
System	
Primary prevention strategies	
Social needs screening and referral	

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Interdisciplinary collaboration	
Other	To inform pharmacists, educators, and faculty members in understanding and delivering optimal care and education engaging Indigenous insights and perspectives at systems and curricular levels.
Community	
Community engagement	
Community needs assessment and planning	
Political advocacy	
Other	
Intervention outcomes or strategy objectives	
Outcome measures	Not applicable
Objective measures	Objective to present data on the opportunities and challenges underlining the existing Indigenous-specific pharmacy practices; review objective was met
Was impact measured?	No
How was impact measured?	N/A
Enablers and barriers to applying the strategy or intervention	
Enablers	Various detailed in the studies examined in review
Barriers	Various detailed in the studies examined in review

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