# First Nations patient-reported experiences of cultural safety interventions in secondary and tertiary healthcare in the CANZUS countries: a systematic mixed studies review

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by

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Declaration
Where other people's work has been used (from either a printed or virtual source, or any other source), this has been carefully acknowledged and referenced in accordance with academic requirements.

The thesis *First Nations patient-reported experiences of cultural safety interventions in secondary and tertiary healthcare in the CANZUS countries: a systematic mixed studies review* is my own work.

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# Abstract

**Background** First Nations people experience poorer health outcomes than non-Indigenous people. Racism is an important contributing determinant of health, including in healthcare settings. Anti-racism and cultural safety promoting interventions in healthcare have been researched. Most research was conducted in primary healthcare or assessed clinician-reported outcomes, neglecting First Nations views, whose perceptions may diverge. This systematic review aims to investigate Indigenous patient-reported experiences of cultural safety promoting interventions in healthcare in Canada, Australia, New Zealand and the USA.

**Methods** PubMed, CINAHL, PsycInfo and Scopus were searched for anti-racism and cultural safety interventions in February 2024. Studies containing First Nations patient post-intervention experience measures in secondary and tertiary healthcare institutions in the CANZUS countries were included. An appraisal tool assessed risk of bias. Data was synthesised by qualitative meta-aggregation.

**Results** 4,613 articles were retrieved, eleven were included. Most studies used a multistrategic approach, including Indigenous-specific programs/clinics, key Indigenous workers, cultural safety trainings. Six findings were synthesised: feeling safe and respected, acknowledgment of culture, navigating the system, emotional support, creating rapport, and health improvements.

**Discussion** This review validates prior observational studies. Quality appraisal showed studies lacked reporting of Indigenous research values, reflecting White dominance in publication practices. Inconsistently used terminology and an overrepresentation of certain countries limited generalisability. Researchers' non-Indigeneity is a limitation.

**Conclusion** Recommendations for cultural safety interventions: Indigenous community engagement; multilevel, multistrategic approaches; cultural safety training for healthcare providers; employing Indigenous staff; incorporating cultural practices; building positive staff relationships; exploration of community-based care; monitoring and evaluation by data triangulation, including patient-reported experience measures.

**Key words** First Nations; Indigenous Peoples; cultural safety; Antiracism; Health Personnel

**Word count** 12,726 words

# Acknowledgement of Country

*I would like to begin by acknowledging the Wiyabul and Nyangbal people of the Bundjalung Nation, the Traditional Custodians of the land on which I have written this thesis over the past year.*

*I would also like to pay my respects to the Elders past, present and emerging.*

# Acknowledgement of People

*I also want to express my heartfelt gratitude to my partner, Micky. Without your unwavering support, this thesis and my master’s degree would never have come to completion. Thank you for standing by me through my career decisions, my never-ending studying, and for enabling me to pursue my dreams.*

*Also, a special thanks to Anna, who is always there when you need her, and continuously prioritises others' needs over her own.*

*I began this journey with one child and completed it with three. Thank you, Pippa, Alfie, and Billy, for your patience and understanding throughout. You may not fully understand this accomplishment right now, but know that it was achieved with you in my heart every step of the way. This thesis is dedicated to you, with all my love.*

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# Abbreviations & Thesaurus

| | |
|---|---|
| ALO | Aboriginal Liaison Officer |
| ATOC | Aboriginal Transfer of Care |
| BIPOC | Black, Indigenous and People of Colour |
| CANZUS | Canada, Australia, New Zealand and The United States of America |
| CFS | Child and Family Services |
| Cultural awareness | Cultural awareness is the first step towards cultural safety. It involves observing how people engage in activities and recognising differences within a population. While it helps in acknowledging diversity, it often falls short of prompting staff or educators to modify their practices, inquire about their patients' activities, or adjust organisational procedures to fully support First Nations patients during their care [1]. |
| Cultural capability | "the skills, knowledge and behaviours that are required to plan, support, improve and deliver services in a culturally respectful and appropriate manner" [2] |
| Cultural competence | "defines a set of consistent and culturally appropriate behaviours or policies existing in an organisation or other group of individuals that permits the provision of effective services in cross cultural situations" [3] |
| Cultural safety | Cultural safety is the last stage of the continuum of *Cultural awareness ⟹ Cultural sensitivity ⟹ Cultural competency ⟹ Cultural safety* [1,4]. It means that professionals, regardless of their background, can communicate effectively with a patient on a social, political, linguistic, economic, and spiritual level [1]. Culturally unsafe practices diminish an individual's cultural identity and well-being [5]. Unlike transcultural healthcare, which overlooks patient-specific aspects, cultural safety requires respect for patients' diverse characteristics and recognises that healthcare providers bring their own cultural perspectives to the relationship [1]. |
| Cultural security | "with a greater focus on systemic change, cultural security seeks to create interactions between health workers and health service users that do 'not compromise the legitimate cultural rights, views, values and expectations of Indigenous people" [6] |
| Cultural sensitivity | The second step towards achieving cultural safety. Cultural sensitivity involves recognising and respecting the diverse ways in which people approach life, particularly considering the cultural backgrounds and experiences of First Nations people. It entails understanding that while individuals may share cultural similarities, their personal experiences and reactions can vary greatly. Being culturally sensitive means acknowledging these differences, valuing them, and respecting that even within the same cultural group, no two people experience the world identically; customs and traditions can be uniquely individual [1,4]. |
| ED | Emergency Department |
| ILO | Indigenous Liaison Officer |
| Kaupapa Māori | "a philosophical doctrine, incorporating the knowledge, skills, attitudes and values of Māori society" [7] |
| RA | Research Assistant |
| PREM | patient-reported experience measure |
| PRISMA | Preferred Reporting Items for Systematic reviews and Meta-Analyses |

| | |
|---|---|
| Smudge | a ceremonial purification practice that involves burning plants to restore balance [8] |
| SC | standard care |
| Tamariki | children (Māori language) [7] |
| UNDRIP | United Nations Declaration on the Rights of Indigenous Peoples [9] |
| Whānau | extended family or related families, occasionally including friends who are unrelated (Māori language) [7] |
| Whānau Ora | “family health” (Māori language), a major contemporary Māori health initiative [7] |
| Yarning | a form of group conversation that is used by Aboriginal and Torres Strait Islander people to share stories and information |

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# Personal prelude

I have aspired to become a medical doctor specialised in Tropical Medicine for as long as I can remember, and I have long been passionate about health equity. I started to gain more interest in the effects of racism during my medical training. In 2020, while working in Sierra Leone, the Black Lives Matter movement further fueled this interest. As my partner put it, I became slightly obsessed with reading and learning about anti-racism, colonialism, eugenics, and related concepts such as intersectionality and white supremacy. My initial sense of guilt was gradually transformed into a commitment to activism. I realised that the current Western medical system still perpetuates many elements that are harmful to BIPOC. Addressing these issues requires more than individual efforts; it demands a long journey of learning and deep systemic change. I believe that efforts to achieve health equity for any marginalised group will ultimately fail if institutional racism within health organisations is not addressed, due to the intersecting nature of various forms of discrimination.

In September 2022, I moved to Australia with my Australian partner and our two, now three, young children. The rejection of a Voice to Parliament in October 2023 underscores the long road to reconciliation between First Nations and non-Indigenous Australians. I was determined to write a thesis that could potentially contribute to the health and well-being of Indigenous Australians. I was fortunate to find the Poche Centre for Indigenous Health in Brisbane, which guided me through the process of writing this thesis. Thus, this thesis came into being. A systematic review necessitates peer reviewing; therefore, while certain aspects, such as article screening and qualitative meta-aggregation, involved collaboration during the process, the writing and analysis presented are entirely my own work. Further necessary adaptation will happen after submission.

With this review, I hope to have made a meaningful, albeit modest, contribution to the health and well-being of First Nations people.

# 1 | Introduction

## 1.1 | Background

First Nations people

First Nations people account for 5% of the population in Canada (anno 2021) [10], 3.2% in Australia (2021) [11], 19.6% in New Zealand (NZ) (2023) [12] and 2.9% in the United States of America (USA) (2020) [13]. Despite the geographical distances and unique national identities, Canada, Australia, NZ and the USA (the CANZUS countries) share a similar settler-colonial history and relationship with their First Nations people. First Nations people in these countries have experienced: (1) genocide, oppression, racism, segregation and marginalisation; (2) land dispossession, displacement and exploitation, leading to loss of resources and the inability to continue certain cultural practices; (3) disempowerment and denial of legal status and rights; (4) forced assimilation policies, such as institutional resocialisation in residential schools, religious conversion and child removal practices; (5) predominantly Anglophone dominance through British historical ties; and (6) recent reconciliation efforts [14–17]. Additionally, in comparison to their non-Indigenous counterparts, greater proportions of First Nations people reside in rural and remote areas with limited health care services [8,18,19].

*In this review, the term 'First Nations people' will be used to respectfully collectively refer to Aboriginal, Alaskan Native, American Indian, Māori, Métis, Inuit, Native Hawaiian and Torres Strait Islander people, amongst others. This term emphasises their status as original inhabitants of these countries and reflects their sovereignty and nationhood. It should simultaneously be stressed that this does not disregard the cultural differences amongst these groups, also within their respective countries. When referring to a specific study, the reported First Nations name or tribe will be used and for legibility, the term 'Indigenous' will occasionally be used.*

Before colonisation, First Nations people lived in a subsistence society, relying on their local ecosystems for sustenance and medicine. This close connection to their environment fostered a profound relationship with their lands and resources, encompassing physical, emotional, mental and spiritual dimensions. This bond was upheld through generations via local knowledge systems, serving as the foundation of life. The impacts of the colonial legacy severely disrupted this way of living, exacerbating existing health disparities [16,20–24].

The health disparity between First Nations people and the general population is evident across all CANZUS countries. Non-communicable diseases, like cardiovascular disease, chronic kidney disease and mental health disorders are major contributors to the burden of disease [13,25–28]. Poor health outcomes, such as a lower life expectancy at birth and high mortality rates, are common [13,25–28]. Australian Aboriginal and Torres Strait Islander children suffer from one of the highest rates of acute rheumatic fever in the world, a preventable condition related to poverty and reduced access to medical care [29]. As a result, Aboriginal and Torres Strait Islander people are 14 times more likely to die from rheumatic heart disease than non-Indigenous Australians [30]. Life expectancy at birth for Aboriginal and Torres Strait Islander people is between eight and nine years less than non-Indigenous Australians [31]. In the USA, American Indian men and women die respectively 12 and 12.5 years earlier than white American men and women. For American Indians, the age-adjusted mortality rate for the leading cause of death, cardiovascular disease, was 20% higher than for white Americans. For homicide, this rate was even five times higher [32]. In NZ, Māori are disproportionately affected by an increased burden of chronic conditions, such as diabetes and renal disease, and these diseases also emerge earlier in life [33]. First Nations people in Ontario, Canada, have a double the prevalence of diabetes compared to the general population, with common cardiovascular comorbidities [34], and a recent systematic review shows the widening of this health gap [35].

## The impacts of racism on health

An important social determinant of health contributing to these health disparities is racism [36]. Race and ethnicity are social constructs designed to categorise people. For race, this categorisation relies on certain phenotypical biological characteristics, such as skin colour or hair, while ethnicity is based on sociocultural traits, like language or religion [37,38]. These categorisations are controversial and problematic both socially and scientifically [39], as demonstrated in the phenomenon of racism. Racism reflects a hierarchical stratification of these categories. Although there is much heterogeneity in the definition of racism, it has commonly been understood as an ideology that combines power dynamics and prejudice [40].

Paradies, an Australian Wakaya Aboriginal scholar, theorises that “racism can be expressed through stereotypes (fixed racist beliefs), prejudice (racist emotions and affect) or discrimination (racist behaviours and practices)” [41]. Racism occurs on three different levels: the internalised level, the interpersonal level and the systemic level, and can be either deliberate or non-deliberate [42]. Internalised racism refers to the attitudes and beliefs someone holds about their race, whether negative (inferior) or positive (superior). Interpersonal racism is the conscious and unconscious discriminatory behaviour expressed during actions between individuals, often referred to as explicit and implicit bias [41]. Systemic racism is an overarching term referring to racialised systems of power on the macrolevel. Structural racism is a component of systemic racism and represents the comprehensive way various systems and institutions interact to enforce racist policies, practices, and beliefs about individuals in a racialised group. Institutional racism emphasises racism in a specific institution. In contemporary literature, the concepts of institutionalised racism, structural racism and systemic racism are often conflated or used interchangeably by scholars [42–46].

Acts of interpersonal and systemic racism contribute to acute psychological distress while repeated acts can lead to internalised racism by creating a negative self-image. Racism is directly linked to other mental health conditions, such as depression and anxiety [47]. The bodily response to a state of chronic stress is an elevated allostatic load, which refers to a cumulative physiological dysregulation [48]. Persistent exposure to stressors repeatedly activates the hypothalamic-pituitary-adrenal axis and the sympathetic nervous system, sustaining a prolonged increase of stress hormones such as cortisol and adrenaline. This chronic activation can cause endocrine, metabolic, immunologic and neurochemical dysregulation [48]. Hence, allostatic load is the biological pathway through which racism increases the risk of diabetes [49] and hypertension [50].

Besides direct health effects, racism also drives poor health behaviours, such as substance abuse as a coping mechanism, physical inactivity and smoking. Racism creates social and environmental hazards, such as ethnic profiling or physical assault and exposure to pollutants. Lastly, racism restricts access to resources, such as quality healthcare services or education and limits employment opportunities [36,44]. The trauma stemming from structural racism is hypothesised to be transgenerational through all aforementioned pathways [51]. A combination of these factors results in racism that contributes to increased overall morbidity and early mortality [52].

## 1.2 | Problem statement, rationale & objective

### Racism in the healthcare system

Racism permeates all societal structures, including the health care system [37,44,53–55]. Racism in healthcare contradicts the principles of the Hippocratic Oath, which explicitly states the need for non-maleficence and justice, implicitly excluding discrimination [56]. However, First Nations people have experienced and still experience discrimination in healthcare, leading to the present-day strong distrust of the medical system [57]. They have been systematically denied access or were segregated to lower-quality areas of the hospital. If they were able to access health care, treatment was regularly substandard [16,57]. Besides poor treatment, there is evidence of unethical medical experiments conducted on First Nations people without their consent. While much of the documentation of these scientific trials has been destroyed, enough records remain to reveal a grim reality. In Canada, First Nations children were subject to tuberculosis and nutrition experiments [58]. The US Public Health Service conducted radiation experiments on Navajo uranium miners in the 1950s [59]. In late 20th century Australia, the authorities performed unethical experiments on Aboriginal and Torres Strait Islander people's experiences of pain [60]. Although ostensibly not targeting Māori, documentation about involuntary sterilisations on Māori women exist [61]. Forced sterilisation practices were also common in Canada, Australia and the USA, driven by the eugenics movement of the late 19th century [62]. Disturbingly, as recent as 2019, Canadian First Nations people have claimed to being coerced into sterilisation [63].

Although these destructive scientific practices have been abandoned and ethical guidelines have shaped modern-day research, racism in the healthcare system is not something from the past, albeit regularly less overt. Research shows that First Nations people experience both implicit and explicit bias from physicians and other healthcare workers. Health care provider anti-Indigenous bias is common, and levels reflect that of the general population [54,64,65]. Despite the available evidence, medical personnel and guidelines can focus on race as a biological driver for disease [66], although it in fact acts as proxy for other risk factors. Failing to recognise underlying determinants of health as contributors, such as racism and low socioeconomic status, increases stigmatisation, suboptimal treatment and lowers health outcomes [67,68]. An example is the estimated Glomerular Filtration Rate, a measure for kidney function. Over the past decades, physicians have used a race-adjusted correction factor for Black people, including Aboriginal and Torres Strait Islander people and Māori, leading to an overestimation of kidney function compared to non-Black people. The formula has been revised in 2021, but still awaits global adoption [69–71].

Identifying racism on an institutional level is less straight-forward than measuring interpersonal bias. An Australian designed matrix aims to identify, measure and monitor institutional racism against First Nations people in public hospitals and health services and consists of five key indicators: governance, policy implementation, service delivery, recruitment and employment and financial accountability [2]. In addition to evaluating institutional racism, the tool could be used to identify actions to improve the effectiveness of health services for Aboriginal and Torres Strait Islander people. Institutional racism can negatively influence health outcomes by higher unmet needs after discharge, higher rates of self-discharge and longer waiting times for surgery for First Nations people compared to non-Indigenous people, being discharged with unmet needs or receiving inadequate pain management [57,72–74]. Therefore, it is unsurprising that racism impacts healthcare utilisation. A meta-analysis investigating the association between self-reported racism and healthcare utilisation found no connection between racism and overall use of health services or specific outcomes such as examinations, health service visits or admissions [75]. However, racism was associated with delays or avoidance in seeking healthcare, lower trust, lower satisfaction and lower perceived quality of care [75].

Like the overlap observed in general life, interpersonal bias frequently intersects with institutional racism in the healthcare context. Although often unintentional, this cocreates an unsupportive and unsafe system for First Nations people, leading to substandard care and sometimes even preventable deaths: Brian Sinclair died in 2008 after waiting for 34 hours in a Canadian hospital emergency room without receiving medical attention [76–78], and Naomi Williams, a pregnant Australian woman, died in 2016 after multiple healthcare providers failed to properly diagnose and treat her condition [79]. No individual or entity has been found criminally or civilly responsible for either of these cases [79,80].

## Cultural safety interventions in the healthcare system

Since the human rights movement of the 1960s and the concurrent engagement to abandon eugenics policies, the regard for equal treatment for First Nations people increased protractedly. The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) [9] further boosted inclusive and equitable policy adaptation for First Nations people. By emphasising Indigenous rights to health, self-determination, and cultural practices, UNDRIP prompted the CANZUS countries to develop policies addressing health disparities and promoting culturally safe care. Current reconciliation initiatives such as the ‘Close the Gap’ campaign in Australia, ‘Whānau Ora’ in NZ and the ‘Truth and Reconciliation Commission’ in Canada aim to either acknowledge historical injustices, respect First Nations knowledge or reduce health disparities through cultural safety training for healthcare providers, increasing Indigenous representation in the healthcare workforce, engaging communities in health service design, and create dedicated health services for First Nations populations. However, most initiatives have been criticised as ineffective, as significant inequities in health outcomes persist or occasionally even increase [74,81–83].

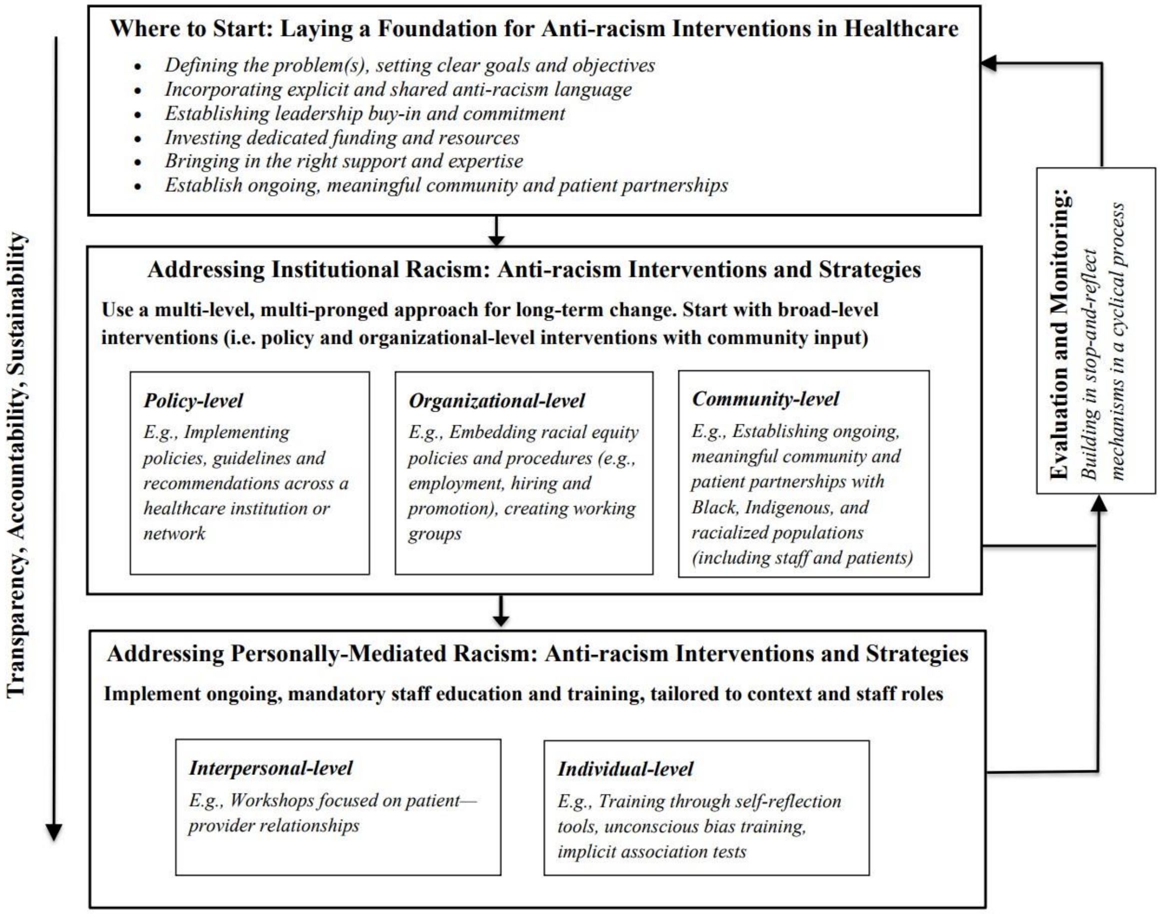
For clarity in this review, it is essential to explicitly define the relationship between cultural safety and anti-racism theories, given the heterogeneity in the use and conceptualisation of cultural safety-related terminology. Anti-racism actively opposes racism and promotes racial justice and equality. Cultural safety is a concept that originated specifically in healthcare settings [5,84] and focuses on the creation of an environment where individuals feel respected, understood, and valued regardless of their cultural background, while incorporating values like cultural competence and intersectionality. The latter integrates the idea that race cannot be viewed as a separate disadvantaging factor but collaborates or diminishes the effect of other factors such as gender or religion. Cultural safety complements anti-racism by acknowledging the cultural diversity within communities and ensuring that services are responsive to the needs of different individuals, such as the gender nonconforming of Two-Spiritedness in American Indians [85]. Therefore, anti-racism interventions should be part of a cultural safe institution, but an anti-racist intervention is not necessarily cultural safe.

## Rationale & Objective

Anti-racism, cultural safety or related trainings represent a common strategy targeting interpersonal racism within healthcare contexts. Anti-racist training interventions have demonstrated positive outcomes, including improved understanding of racism, increased confidence in addressing it, and a desire for more training [55]. Some trainings increased empathy towards racialised minorities while post-intervention implicit bias did not reduce [86]. Post-intervention improved attitudes are sustained in some studies [6] but not in others [87]. Additionally, institutional racism issues persist without significant resolution as these interventions typically leave the systemic or institutional dimensions of racism unaddressed [55]. Some studies suggest that adopting multistrategic approaches to enhance cultural safety, including the institutional level by policy-adaptations and increasing First Nations representation in the workforce, holds greater promise compared to single-target interventions. Nevertheless, the durability of such impacts remains uncertain [88–91].

Many initiatives aimed at improving the cultural safety of healthcare institutions were in a primary care setting [88,92,93], limiting generalisability of results for secondary or tertiary care settings. Secondary and tertiary care involve more complex and specialised healthcare needs and often operate under more time constraints, requiring a nuanced understanding to ensure culturally safe practices. Moreover, interventions often adopted a top-down approach, often failing to meaningfully engage with the First Nations target population. Assessments of outcomes frequently prioritise improvements in cultural safety from the perspective of healthcare providers or institutions [88,91,92], neglecting the perspectives of First Nations viewpoint whose experiences and perceptions may significantly diverge. In addition, evaluations of anti-racism interventions targeting healthcare professionals are often influenced by social desirability bias [54]. Because prejudices and discriminatory behaviour is considered socially undesirable, anti-racism research inherently faces challenges. Consequently, surveys often provide an incomplete view [94]. To gain additional and a more accurate understanding of the effectiveness of these interventions, research should include patient-reported experience measures (PREMs) [95].

Hassen et al. conducted a scoping review towards the existing anti-racism interventions in outpatient healthcare settings and summarised the findings in a conceptual model [91]. The model (figure 1) visualises principles and strategies for anti-racism interventions in healthcare settings, incorporating the different levels that racism occurs on. The personally-mediated level corresponds to the interpersonal and internalised levels of racism, while the institutional level relates to systemic or institutional level of racism. However, this synthesis included interventions in primary care settings and focused on outpatient care towards BIPOC (Black, Indigenous and People of Colour), without a subgroup analysis of the 12% of included studies that focused on First Nations people only. Additionally, this review lacked PREMs [91].



**Where to Start: Laying a Foundation for Anti-racism Interventions in Healthcare**

- *Defining the problem(s), setting clear goals and objectives*
- *Incorporating explicit and shared anti-racism language*
- *Establishing leadership buy-in and commitment*
- *Investing dedicated funding and resources*
- *Bringing in the right support and expertise*
- *Establish ongoing, meaningful community and patient partnerships*

**Addressing Institutional Racism: Anti-racism Interventions and Strategies**

**Use a multi-level, multi-pronged approach for long-term change. Start with broad-level interventions (i.e. policy and organizational-level interventions with community input)**

***Policy-level*** *E.g., Implementing policies, guidelines and recommendations across a healthcare institution or network*

***Organizational-level*** *E.g., Embedding racial equity policies and procedures (e.g., employment, hiring and promotion), creating working groups*

***Community-level*** *E.g., Establishing ongoing, meaningful community and patient partnerships with Black, Indigenous, and racialized populations (including staff and patients)*

**Addressing Personally-Mediated Racism: Anti-racism Interventions and Strategies**

**Implement ongoing, mandatory staff education and training, tailored to context and staff roles**

***Interpersonal-level*** *E.g., Workshops focused on patient—provider relationships*

***Individual-level*** *E.g., Training through self-reflection tools, unconscious bias training, implicit association tests*

**Evaluation and Monitoring:** *Building in stop-and-reflect mechanisms in a cyclical process*

**Transparency, Accountability, Sustainability**

*Figure 1. "Overview of the principles and strategies for anti-racism interventions in healthcare settings" by Hassen* [91]

Another review on Indigenous health equity in the CANZUS countries focused on interventions and initiatives in Emergency Departments (EDs), including educational programs [96]. The four recommendations for implementing interventions in EDs were (1) staff cultural safety education, (2) designing welcoming waiting rooms, (3) integration of Indigenous models of care, and (4) long-term evaluation methods inclusive of Indigenous perspectives [96]. The latter underpins the current paucity in scientific research of First Nations peoples' experience of anti-racism and cultural safety interventions.

A 2022 systematic review explored the meaning of culturally safe healthcare for a First Nations people [97]. Although the review included views from First Nations people from the CANZUS countries and Scandinavia, the focus was on Aboriginal and Torres Strait Islander people. This meta-ethnographic review found personable two-way communication, a well-resourced Indigenous health workforce, trustful relationships and supportive healthcare systems to be key elements [97]. While this review can support the implementation of cultural safety interventions, the current literature lacks a comprehensive analysis of patient-reported experiences to confirm the effectiveness of interventions. This systematic review aims to fill this gap. Therefore, the objective of this study is *to investigate the patient-reported experiences of anti-racism, anti-discriminatory, prejudice-reducing and cultural safety promoting interventions for secondary and tertiary healthcare institutions in the CANZUS countries.*

# 2 | Methodology

## 2.1 | Reporting guidelines

This research follows the reporting guidelines as stated in the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) 2020 Statement [98]. Additionally, this review will inform the implementation of a cultural safety intervention programme for an Australian tertiary health service, and policy recommendations will be shaped accordingly.

## 2.2 | Eligibility criteria

### Inclusion criteria

- *Target population:* healthcare professionals treating First Nations people in the CANZUS countries. This includes physicians and nurses, but also allied healthcare providers and support staff.
  *Beneficiary population*: First Nations people receiving healthcare.
- *Intervention:* all interventions a) reducing racism, bias, stereotypes, prejudice or discrimination, or b) promoting cultural safety, cultural awareness, cultural competence, cultural security, cultural sensitivity or cultural understanding. Interventions could either focus on the individual or interpersonal level, like cultural safety trainings, or the institutional level, such as policy adaptations, or both.
- *Outcome:* this research aims to investigate the post-intervention patient-reported experiences of anti-racism or cultural safety interventions. This includes both the interpersonal (health care provider) level as well as institutional (the health service) level.
- *Setting:* all studies conducted in secondary and tertiary healthcare institutions. We also included outreach services or community-based facilities when these were evidently a part of secondary or tertiary health institutions.
- *Study design:* we included all empirical studies describing patient-reported experiences of anti-racism or cultural safety interventions. This includes quantitative, qualitative and mixed-method studies.

### Exclusion criteria

We did not employ any exclusion criteria.

## 2.3 | Search strategy

### Information sources & search strategy

Relevant data for this research was collected from the electronic bibliographic databases CINAHL, PsycInfo, PubMed and Scopus. A preliminary search was done and after consulting with an information specialist some small amendments were made. I translated the modified PubMed search strategy manually to the other databases and the final strategies were approved by SL. The search terms included anti-racism and cultural-safety related keywords, including, but not limited to: cultural safety, discrimination, stereotyping, oppression and equal treatment. No date or language restrictions were applied. For the complete PubMed search strategy including the date, see Appendix A.

## 2.4 | Data selection & collection

### Selection process

‘Covidence’ was used for the screening process, a web-based collaboration software platform for conducting systematic and other literature reviews [99]. Two reviewers, Anne van der Breggen and Stuart Leske (AB and SL), independently screened the title and abstract of all retrieved citations. If conflicts emerged, we made a final agreement after discussion. For the next stage of full-text analysis, we followed the same process: we independently screened and resolved disagreements through discussion.

### Data collection process

We designed a data extraction tool in Microsoft Excel which both reviewers used independently. Data were compared and if discrepancies occurred, consensus was reached after conversation. The following data were extracted from each article: the author, country where the study was conducted, setting, start and end dates, group of participants, population eligibility criteria, sample size and the percentage of First Nations people, intervention type, study outcomes and quantitative findings. Additional data extracted by AB were: study aim, study design and method of data collection, and confirmed by SL.

## 2.5 | Risk of bias assessment

### Appraisal tools

The application of a quality appraisal tool is integral to enhancing the transferability and credibility of findings. However, some people believe it should be rejected in qualitative research because it limits interpretation and creativity [100]. A critical limitation in existing First Nations research is its tendency to be disproportionately dominated by White perspectives [101]. The Aboriginal and Torres Strait Islander Quality Appraisal Tool addresses a critical gap in current appraisal methodologies, particularly concerning the assessment of research quality from Indigenous perspectives [102]. Existing appraisal tools often neglect Indigenous epistemologies and values, posing limitations in evaluating the validity and contextual relevance of research involving First Nations populations. Specifically, these tools fail to incorporate First Nations principles such as reciprocity, responsibility, survival, protection, equality, and respect for the communities involved [102]. Without an Indigenous quality appraisal, the efficacy and credibility of interventions aimed at enhancing cultural safety within healthcare contexts remain subject to dispute [102]. The Aboriginal and Torres Strait Islander Quality Appraisal Tool was initially designed specifically for an Aboriginal and Torres Strait Islander context but has previously been modified [103] to fit First Nations populations in the CANZUS countries. By incorporating the Aboriginal and Torres Strait Islander Quality Appraisal Tool, as modified by Harfield et al. [103], this systematic review endeavours to address these limitations and provide a more culturally safe approach to evaluating qualitative evidence within Indigenous health research contexts in Australia.

## 2.6 | Synthesis methods

Following the Joanna Briggs Institute guidance for mixed methods systematic reviews [104], I used a convergent integrated approach to combine the quantitative studies with the qualitative studies. This required “qualitising” the quantitative data: transforming results of quantitative studies to textual descriptions [104]. Qualitising of the quantitative data was done by the primary researcher (AB) and confirmed by SL. The data was subsequently integrated into the qualitative analysis.

We independently used qualitative meta-aggregation to synthesise the data. The meta-aggregative approach combines qualitative research principles with systematic review methods and aims to produce generalisable recommendations which can be translated to practice-level theories or strategies in healthcare policy. Meta-aggregation aims to minimise the impact of reviewer bias by avoiding reinterpretation [100].

## Analytical framework

I used the framework depicted in figure 2 to organise the results and connect them to the objective of this review. As a White, non-Indigenous researcher, I acknowledge the necessity of interpreting the results of this review through an Indigenous framework. This allows the integration of Indigenous knowledge, history, and experiences. Applying an Indigenous lens prevents colonial views that favour reductionist science [105].

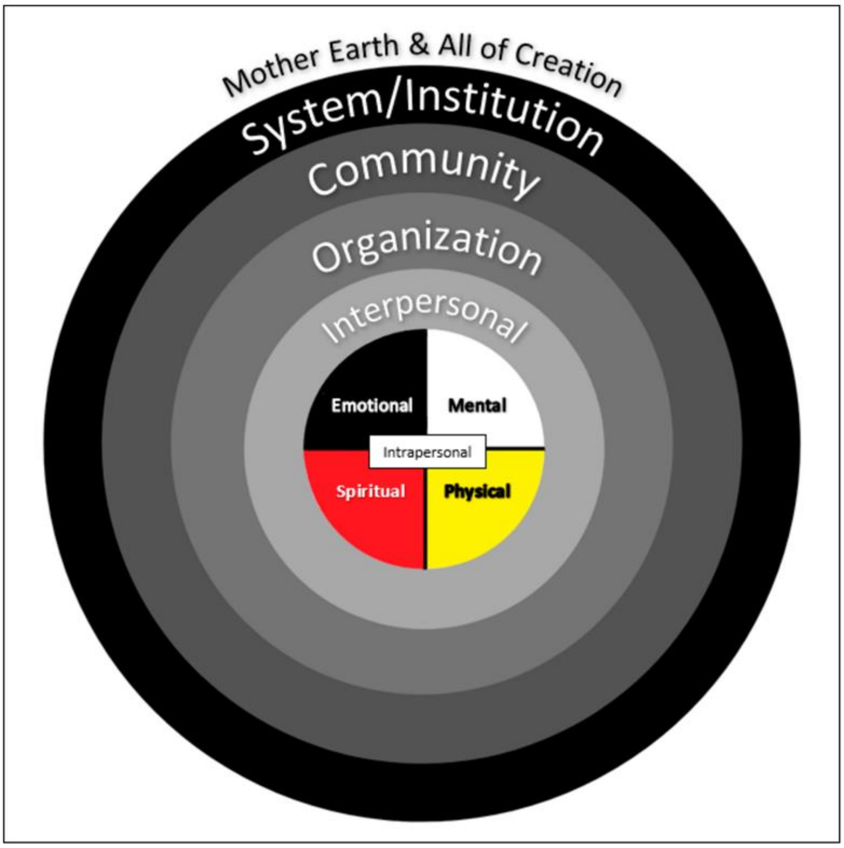


*Figure 2. "The Integrated Indigenous-ecological model, adapted from Lavallée* [106] *and Lavallée and Levesque* [107]*" by Akbar* [109]

Canadian researchers Lavallée [106] and Lévesque [107] developed an integrated Indigenous-ecological model, which combines Indigenous perspectives with Western knowledge systems and is guided by the Mi'kmaq Elders Albert and Murdena Marshall's two-eyed seeing approach [108]. This methodology promotes the synergistic application of both Canadian First Nations and Western scientific knowledge, ensuring neither perspective dominates the other [108]. The centre of the framework is formed by the medicine wheel, symbolising physical, emotional, mental and spiritual health, while its convergence reflects its interdependence [107]. While not universally adopted among First Nations peoples, it holds significance for some American Indian and Métis communities and Akbar [109] has applied the framework to analyse studies focusing on First Nations in the CANZUS countries. For Māori and Aboriginal and Torres Strait Islander people, health is equally a holistic concept that includes the physical, social, emotional, cultural, and spiritual well-being of both individuals and the community as a whole [110,111]. In relation to the objective, the Mother Earth and all of Creation and systemic/institution level of the framework relate to patient-experiences on the level of systemic racism and the effects on Indigenous health. The frameworks' community and organisation levels correspond with the (healthcare) institutional level of racism and the interpersonal level to the interpersonal level of racism. Lastly, the intrapersonal level relates to the internalised level of racism.

## 2.7 | Terminology

### Mother Earth, whenua and Country

The concepts of ‘Country’ for Aboriginal and Torres Strait Islander peoples, ‘Mother Earth’ for North American First Nations and ‘whenua’ for the Māori all denote a profound spiritual and cultural connection to their respective environments and are inseparable from health and wellbeing [112–114]. These connections embody sacred relationships, ancestral ties, and custodianship. ‘Country’ includes land, waters, skies, and all living entities [112]. ‘Mother Earth’ represents the entire planet as a nurturing, life-giving entity [114]. Similarly, ‘whenua’, meaning both land and placenta, depicts land as a nurturing mother the source of all sustenance for people, analogous to the placenta nourishing a child in the womb [113]. In case of collective use for all First Nations people, ‘Country’ will be used in this review.

### Cultural safety

The heterogeneity in the terminology relating to cultural safety used in contemporary literature necessitates explicit definitions of the used concepts in this review. For cultural safety, we use the definition by the Canadian National Aboriginal Health Organization [1], which uses elements of the original definition by Irihapeti [5], and has been adopted by the Australian Institute of Health and Welfare [74]. This definition describes cultural safety as the last stage of a continuum of building blocks:

Cultural awareness ⟹ Cultural sensitivity ⟹ Cultural competency ⟹ Cultural safety [1,4].

In an Indigenous context, ‘cultural safety’ means that professionals, regardless of their background, can communicate effectively with a patient on a social, political, linguistic, economic, and spiritual level [1]. Culturally unsafe practices diminish an individual's cultural identity and well-being [5]. Unlike transcultural healthcare, which overlooks patient-specific aspects, cultural safety requires respect for patients' diverse characteristics and recognises that healthcare providers bring their own cultural perspectives to the relationship [1]. For consistency, we will use the term 'cultural safety' when applicable, despite other terminology may be employed in some instances within the included studies. Related concepts are defined in the Thesaurus.

# 3a | Results - general

## 3a.1 | Study selection

The search retrieved 4,613 citations, of which Covidence automatically removed 2,024 duplicates. Another 91 articles were added through backward citation searching. Eleven studies met inclusion criteria [3,7,8,18,115–121]. Figure 3 shows a flow diagram of the selection process.

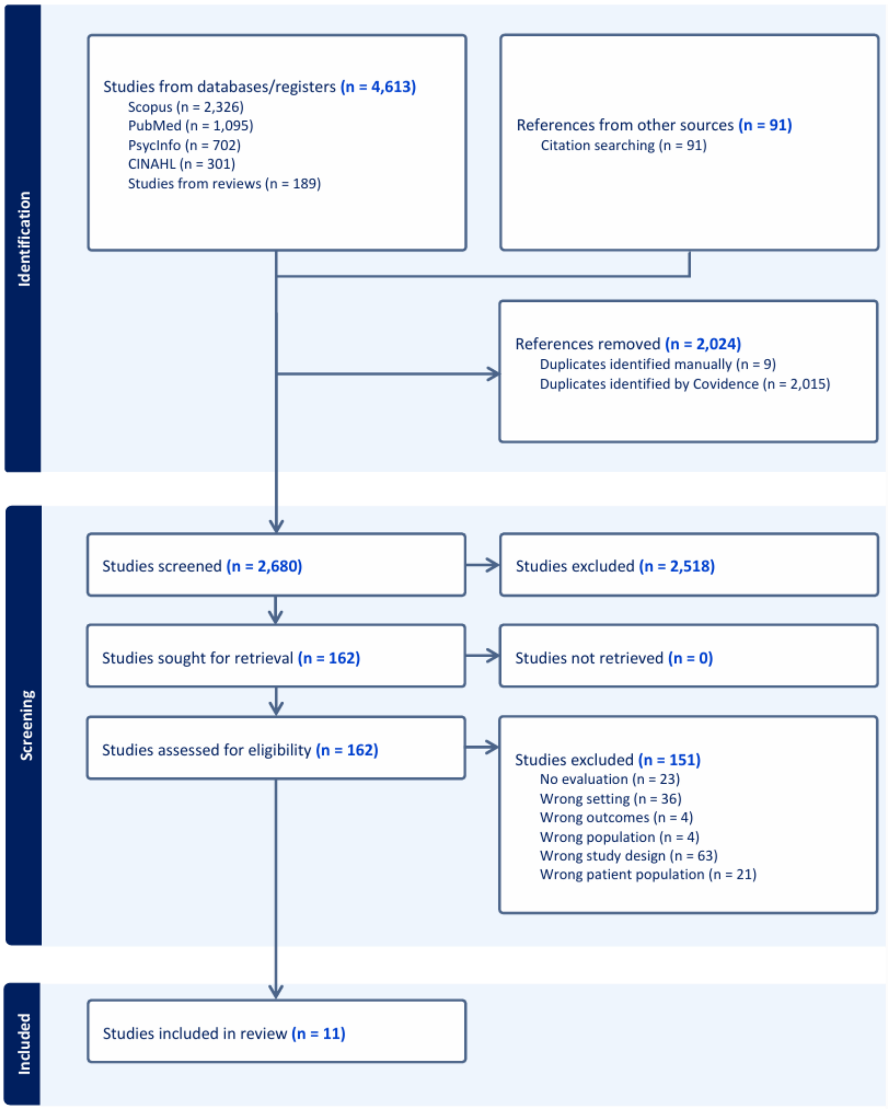


*Figure 3. PRISMA selection process*

## 3a.2 | Study characteristics

Eight out of eleven studies used a qualitative research approach, two used a quantitative approach and one study used mixed methods. The majority of studies was conducted in Australia (n = 6), three in Canada, one in NZ and one in the USA. The oldest article included in this review was a case study that was published in 1986, the other publication years ranged between 2012 and 2024. Methods used for data collection included interviews (n = 6), surveys (n = 6), observations (n = 3) or focus groups (n = 2), hospital databases (n = 2). Six studies used multiple methods. Two qualitative studies used a control group [7,121]. Appendix B contains an overview of all study characteristics.

## Types of interventions

Appendix C shows a tabulation of the intervention types. Eight studies evaluated an Indigenous-specific program (n=5) [3,7,118,119,121] or an Indigenous-specific clinic (n=3) [8,120,121]. Two of these were community-based secondary services [8,18]. These interventions included maternity care programs (n=3) [3,119,121], a tele-ophthalmology clinic [8], an American Indian clinic based within an emergency department (ED) [120], a multidisciplinary Aboriginal Transfer of Care (ATOC) model from secondary to primary care [118], a mobile dialysis truck serving remote communities [18] and the use of an assessment tool to reduce health inequities [7].

The three reports which did not evaluate an Indigenous-specific program or clinic were a pilot-study of an Indigenous Patient Navigator [115] and the two quantitative articles [116,117]: a multisite, multistrategic study at three ED's implemented different cultural safety interventions at each site, coordinated by working groups [116] and an study evaluating the effect of Indigenous art-themed name and role caps worn by operating theatre staff [117].

Six studies implemented a key Indigenous worker [3,7,115,118,119,121]. All served as a patient navigator [7,115,118,119,121], except one, who had the role of Aboriginal Grandmother in an Indigenous maternity program [3]. The duties of patient navigators vary, but mostly include assisting patients in navigating the healthcare system, coordinating care, improving communication, providing practical support and addressing cultural or language barriers [115]. Patient navigators and Aboriginal or Indigenous Liaison Officers (ALO/ILO) have overlapping roles, but the latter additionally focus on bridging the gap between healthcare provider and patient, clarifying Indigenous health perspectives and providing emotional support and advocacy when needed [115,118,121]. In three reports, the ALO/ILO served as the patient navigator [115,118,121]. In two other studies, this role was filled by the Research Assistant (RA) [7] and the Indigenous Birth Support Worker (IBSW) [119]. One study implemented the ALO as a part of the ATOC program [118].

One study employed an Aboriginal Grandmother in their maternity program as a key Indigenous worker [3]. Australian Aboriginal and Torres Strait Islander Grandmothers traditionally play a vital role in maternity care [3]. They serve as birth attendants, midwives, and mentors, supporting the newborn's spiritual, physical, and emotional development. This intervention included a 'Grandmother role' to incorporate this important relationship and allow for transfer of generational knowledge [3].

Several interventions included employment of staff with a First Nations background (n=5) [3,8,115,119,121] and three interventions included access to cultural practices [8,18,119]. For two Canadian reports, this included facilitation of ceremonies, smudging and traditional arts activities like beading [8,119]. Additional elements in these separate studies were optional prayers, storytelling, arranging Elders upon client request [119], and the inclusion of cultural artifacts in clinic screening protocols and setting up a teepee for socialising and cultural activities [8]. The Australian community-based dialysis truck indirectly supported cultural practices by enabling patients to return to their Country, visit culturally significant sites, and engage in traditional activities [18].

Three studies describe a form of cultural safety training [3,116,120]. One provided cultural awareness training for non-Aboriginal midwives [3] although the content of the training was not specified. The second intervention reports on "staff education about differences in cultural values to promote understanding and acceptance" combined with practices like 'name-dropping', i.e. referring to familiar American Indian people, welcoming patients regardless of them being sober and using a relaxed one-on-one approach [120]. A specific training on stigma and substance use, including Indigenous-specific racism was part of one intervention [116]. One report specifically mentioned the necessity of cultural safety training, but it remained unclear whether this was implemented as a part of the intervention [118]. Two interventions displayed Indigenous artwork in waiting areas to create a more welcoming environment [116,120], while another study investigated the effect of Indigenous-art themed operating theatre caps on patient comfort [117]. Other elements of interventions included partnering with Indigenous communities (n=2) [116,118], improving patient way-finding, equity-oriented and anti-stigma messaging [116] and a no-appointment policy [120]. Partnering with Indigenous communities was a key element of the ATOC model; the study was guided by Aboriginal authority, ensuring adherence to cultural values and community protocols. Timelines were extended to facilitate thorough community engagement [118]. The other study did not specify how they partnered with Indigenous communities nor did they clarify the content of its equity-oriented and anti-stigma messaging [116].

When using the anti-racism levels of Hassen's conceptual model (figure 1) [91], all interventions operated at the institutional level [3,7,8,18,115–121], with four acting on both the institutional and personally-mediated levels [3,18,116,120]. Interventions at the personally-mediated level included cultural safety training [3,116,120]. Additionally, the implementation of the dialysis truck, though originally unintended, was also described as an important opportunity of cultural training [18]. Most interventions applied were multistrategic (n=7) [3,8,116,118–121], while four articles used a single-strategy approach (n=4) [7,18,115,117].

Predominantly used terminology in the studies included cultural safety (n=5) [18,116,118,119,121], cultural competence (n=3) [3,18,117] and cultural appropriateness (n=2) [7,115]. Three reports [18,118,121] mentioned multiple concepts, but the study focus remained unclear. Only one article provided an explicit definition of the concept under study [3].

## 3a.3 | Quality appraisal

An overview of the Aboriginal and Torres Strait Islander Quality Appraisal Tool, as modified by Harfield [103], is presented in Appendix D. The scoring was guided by the companion document [122]. Of the eleven studies, most studies had an overall ranking of "Unclear"; only two studies fulfilled a majority of criteria and two partially. Study quality was predominantly limited by omitting description of most criteria, particularly on agreements in relation to and protection of intellectual and cultural property and control over the collection and management of research material. Nearly all studies scored "Unclear" on the research being in response of a need defined by the community and it being guided by an Indigenous paradigm. No studies were excluded based on the quality appraisal since the studies scored comparably.

# 3b | Results - qualitative synthesis

## 3b.1 | Qualitative meta-aggregation

Following the approach for qualitative meta-aggregation, we extracted 45 findings with 119 illustrations with experiences from First Nations people from the nine articles with qualitative data. Author-derived themes, metaphors as well as author observations were considered as findings. Three findings were findings with qualitised data from the articles containing quantitative data. We allocated a plausibility to the findings, which resulted in 39 unequivocal (findings beyond reasonable doubt), 5 equivocal (findings open to challenge) and 4 unsupported (findings not supported by the data). Many findings were accompanied by two or more illustrations, leading to most findings rated as unequivocal. The unsupported findings were left out of the synthesis, leading to a total of 44 findings used for analysis. Both the unequivocal and equivocal findings were used and given equal weight. Identification of findings and the subsequent arrangement into categories and synthesised findings was done through an iterative process of reading and rereading. We categorised and grouped the categories into synthesised findings mostly based on similarity in concepts. Both reviewers (AB and SL) independently followed the same process and resolved discrepancies through discussion. Six overarching findings correlate to First Nations patient-reported experiences and will be structured according to the Lavallée's Indigenous framework, including the corresponding categories.

## 3.b2 | Mother Earth and all of Creation

No synthesised findings related to the level of 'Mother Earth and all of its Creation', but the category 'spiritual health' describes the importance of facilitating interventions that minimise the impact on Indigenous patients' spiritual health. This category is grouped under the interpersonal level.

## 3b.3 | System / Institution

### Feeling safe and respected

The synthesised patient-reported experience relating to the system/institution level is a feeling of safety and respect. Cultural safety interventions can contribute to this feeling by creating a safe and supportive environment and giving respectful care. Although many First Nations people share a collective feeling of distrust towards Western institutions, the interventions demonstrated the potential of eroding this distrust.

**Having a safe and supportive environment**

Indigenous-specific clinics and studies that included key Indigenous workers in their interventions mitigated this systemic distrust. Study participants described experiencing feelings of safety, comfort, support and trust upon interacting with key Indigenous workers [7,118,119]. A sense of safety may be minimised in patients with recurrent hospital admissions, but a key Indigenous worker can provide support and reassurance:

> *"It just makes me feel at ease, really at ease . . . I've got someone there to help me. I'm not on my own with the system"* [118].
>
> *"I had a lot of support there which was good because that's what you really need. You're in foreign place. You're scared. You don't know what's gonna happen"* [118].

Additionally, a continuity of healthcare provider contributed to a feeling of safety as this increased rapport between patient and healthcare provider [118,121].

**Receiving respectful care**
The one-on-one attention that was provided that was given by key Indigenous workers, was highly appreciated, improving the experience of quality of care [119] and evoking feelings of being treated with "value, dignity and respect" [7]. The relaxed manner [7] in which the care was given made patients feel valued. An American Indian-specific clinic was described as a place of security and comfort for their patients by expressing respect for their culture, making them feel "accepted as they are" [120].

**Improved quality of care**
Key Indigenous workers contributed to positive care experiences [3,7,119] for First Nations people. A quantitative Canadian study [116] at three ED's implemented quality improvement interventions. Implementation and progress of these culturally safe interventions was compromised due to the pandemic, resulting in one ED not undertaking any interventions during the research period. This ED found that self-identified Indigenous patients reported lower perceptions of quality of care at all time points. In the other two locations, despite sustained intervention activities, patients' perceptions of quality of care did not improve [116].

## 3b.4 | Community

No synthesised findings related to the 'community' level. However, the deep connection between patients and their community, land and culture emerged from five studies [8,18,119–121]. The importance of facilitating Indigenous connections with their community as a part of the interventions, appeared from several categories which are discussed in the next section.

## 3b.5 | Organisation

### Acknowledgement of culture

The organisational level of the framework relates to the interaction between the hospital setting and the loss of cultural and family interactions.

**Overcoming geographical and economic barriers**
In the evaluation of a community-based tele-ophthalmology clinic, patients describe their reluctance to attend a regular healthcare facility, because they "live more than three hours away from the nearest hospital" [8] and "can't afford to take time off work" [8]. A community-based clinic or intervention helps to overcome these geographical and economic barriers by allowing patients to stay on their Country [8,18].

**Facilitating connections to Country, community and culture**
Besides geographical and economic factors, First Nations patients experience a disconnection from their culture when they receive Western healthcare. Hospitals, particularly EDs, operate with cultural values that differ significantly from First Nations values, like chaos and impersonality [120]. Additionally, American Indian patients explain why they avoid hospitals:

> *"To feed the spirit, one must stay connected to nature, not be inside a hospital"* [8].

Chronically ill Australian Aboriginal patients who were forced to relocate because of kidney disease describe a sense of shame and grief from separation of their land and family. For Aboriginal and Torres Strait Islander people, living and dying on another Country evokes this shame:

> *"Here, we have taken someone else's chair. We feel shame because it is not our Country here. What is someone else is from here and they can't come back from Adelaide coz there's no chairs here. I've taken up that chair. [We] feel a lot of shame for that"* [18].
>
> *"Here I am powerless, I have no say. It's not my Country. I need to get back to my own Country. There are other tribes running my Country. I feel like we're not part of the community here. I can't go to there"* [18].

Community-based secondary care interventions, such as the possibility of dialysis on Country, provides patients with joy due to the capacity to engage with family members and visit sites of cultural significance [18]. The location on Country allowed them to participate in activities that health limitations would have otherwise restricted [18].

**Culturally safe interactions**

Most interventions aimed to minimise the disconnection from culture perceived by First Nations patients when receiving conventional Western healthcare. First Nations participants unanimously reported positive responses across the studies regarding acknowledgement of cultural practices or elements of culturally safe care. Nine studies emphasised the importance of creating culturally-safe interactions [3,7,8,115,117–121], allowing a sense of security and comfort in the unfamiliarity of the healthcare setting. An aspect contributing to this feeling of cultural connection and acknowledgment was the employment of First Nations staff, not only to create a welcoming environment [3], but also for facilitating communication in their own language [7]. However, one study evaluating the employment of an Indigenous Patient Navigator for oncological treatment reported both on positive and negative aspects. The personal relationship was appreciated, but familiarity was also perceived as potentially negative, as patients were reluctant to share information with someone from their own community [115]. The benefits of cultural safety training to create a culturally competent workforce with improved intercultural understanding was mentioned by three studies [7,118,121]. A patient reported the following regarding culturally safe interactions:

> *"You can't work with my people if you don't know how to"* [118].

**Facilitating cultural traditions and ceremonies**

Two Canadian studies incorporated access to cultural traditions and ceremonies in their intervention [8,119]. These rituals included 'smudging' and traditional arts. This form of cultural support was positively received by patients and their families, making them feel like their culture was recognised and respected. A quantitative study to assess the perioperative experience of patients before and after the introduction of Indigenous art-themed name and role caps worn by operating theatre staff found that 91% (95% Confidence Interval 82–100) Aboriginal and Torres Strait Islander people felt more comfortable after introduction [117]. However, non-Indigenous patients also reported feeling more comfortable following the introduction. It remained unclear whether the names and roles on the cap, the fact that the caps were Indigenous art-themed, or the improved communication between patients and healthcare providers were the most important factor contributing to this increased feeling of comfort [117].

## Navigating the system

The second synthesised finding relating to the organisation level of the framework was ‘navigating the system’. First Nations patient navigators were perceived to be a great aid in navigating the healthcare institution and system. Patient navigators boosted confidence in navigating services, improved communication and provided required instrumental support [3,7,115,118,119].

### Navigating services

In several cases, participants required help in obtaining services or needed coordination of care [3,7,115,118,119], which the First Nations patient navigator could provide. This included inpatient hospital services by advocating for their needs [119] but also help with referrals to appropriate services [7] or coordinating home care services, such as shopping or assistance with childcare [118,119].

> *“Also, they put me in touch with a couple of people able to come and advocate for me, on my behalf, with the CFS, to help me get my daughter back into my care. So that was really good. They’ve been helpful for everything”* [119].

In addition to obtaining the care itself, navigators taught the patients how to make use of the system [7,115,119]. This approach made participants feel valued and confident in accessing further services [7].

### Improving patients’ understanding of care

Besides the logistical side of the coordination of services for participants, four studies remarked how key Indigenous workers contributed to improved communication between healthcare provider and patients [3,7,118,119]. The key Indigenous workers provide a link between healthcare provider and patient, ensuring that care plans are understood correctly [118]. Patients valued the one-on-one time that key Indigenous workers offered, adding to the quality of patient experience [119]. A participant in the NZ study reports on the added value of being able to converse in her own language:

> *“I found it really relaxing. Questions I could relate to [the RA]... It was so refreshing to talk to somebody that knew where you were coming from... It was really awesome that [the RA] took that time to explain. My partner, he is more understanding in Māori than he is in English, so for her to take that length of time was good for him”* [7].

### Practical and instrumental support

Two Indigenous-specific programs supported patients by giving immediate practical support which was highly appreciated [7,119]. This was done by providing clothes [119], food [7,119] or organising children’s car seats [7]. In addition, the key Indigenous worker helped patients voice concerns to healthcare staff if they felt mistreated:

> *“I have had been experiencing some stigma, specifically last night, and I made a complaint, and a different doctor was put to take care of me instead of the other one. But the support worker helped advocate that for me and helped me make that com plaint. And I don’t think I would’ve if she wasn’t there”* [119].

## 3b.6 | Interpersonal

### Emotional support

The first synthesised finding at the interpersonal level was the highly valued emotional support provided by key Indigenous workers. This support was demonstrated through empathetic and meaningful interactions, by simply providing company, compassionate care and being someone to talk or yarn with.

**Having company**
Patients frequently expressed appreciation for the companionship provided by key Indigenous workers [7,115,119]. They value patient navigators' understanding of their health situations, despite these navigators being not personally known to them:

> *"Have somebody to talk to who knows about it and who you don't know"* [115].

Patients enjoyed how friendly [7,119] and easy-going [119] the key Indigenous workers were, improving their satisfaction of care [119]. Although the key Indigenous workers could provide patients with instrumental or cultural support, some patients did not require this and just simply sought someone to talk to [115].

**Receiving compassionate care**
Compassion played a crucial role in patient care, as evidenced by patient experiences that highlighted the significance of interpersonal support [3]. Patients emphasised the importance of having someone who understood and empathised with their situation, providing comfort and reassurance during treatment [115]. Regular check-ins and attention from healthcare staff were particularly beneficial, making patients feel genuinely cared for and supported [119].

**Talking & yarning**
Conversational support, even on mundane topics, helped alleviate feelings of isolation when family members were absent, and provided an outlet for emotional expression [119]. First Nations staff were valued by patients for enhancing communication [7,118,119] and serving as role models [3]. Additionally, the ability to converse in their native language facilitated more effective expression and understanding [7], as well as being addressed in plain language by the key Indigenous worker:

> *"[The ALO] talks to you on a blackfella level, the way they should, especially in the city... He tells the ins and outs of everything, explained everything"* [118].

### Creating rapport

The other synthesised finding that related to the interpersonal level was the establishment of rapport between patients and healthcare providers. Rapport refers to a harmonious relationship marked by connection, affinity, and communication. Rapport could be established between the patient and healthcare professionals, but also between the patients' family and healthcare providers.

**Continuity of carer**

A contributor to good staff relationships was a continuity of healthcare provider. Patients who received standard care (SC) expressed frustration at having to repeatedly share their story with different healthcare providers [121]. Some Indigenous-specific programs focused on providing the same healthcare worker and this was appreciated by the participants:

> *"It's good coming here too because you know you're going to see the same people all the time. It's not a different doctor or a different midwife every time who's going to ask you the same questions over and over again [...] she (midwife) knows your full-on history from the first visit to, you know, your last visit. She knows everything about you, which is good"* [121].

**Comfortable physical space**

The same study described elements that hindered the establishment of rapport between healthcare providers and patients, namely a lack of privacy and physical space which compromised confidentiality [121] and regular switching of healthcare providers [121]. Two articles reported placing Indigenous artwork on the walls in waiting areas to create a more welcoming environment, though its impact on patient perceptions of culturally safe care remained unclear as these interventions were not separately evaluated [116,120].

**Good listening skills and representation**

Patients appreciated the personalised attention and assistance from First Nations staff, who excelled in listening [7,115,121] and served as role models [3]. This respectful, culturally safe, and trauma-informed care significantly improved their experience [119]. Having a calm conversation, with attentive listening, promoted self-autonomy and showed genuine care for their well-being as First Nations people [7]. The presence of First Nations staff or key Indigenous workers also facilitated more personal relationships between the staff and patient or family, making information easier to understand and accept [3,7,8,118]. However, some patients preferred not to share their condition with someone known in their community [115], and others placed more importance on the qualifications and experience of the staff rather than their First Nations background. Ultimately, the ability to listen effectively was more significant to patients than the appearance or background of the healthcare provider, as demonstrated by the following remark:

> *"It's someone that's going to listen to you, then it don't matter what they look like"* [121].

## 3b.6 | Intrapersonal

### Health improvements

The intrapersonal level relates to Indigenous physical, mental, spiritual and emotional health and their interconnectedness. A synthesised patient-reported experience of cultural safety interventions are health improvements; physical through lifestyle changes, emotional and mental through emotional or practical support from key Indigenous workers and spiritual through cultural practices.

**Spiritual health**

The concept of 'Mother Earth', 'Country' or 'whenua' is deeply intertwined with Indigenous spirituality and sense of identity. Disconnection from Country leads to a profound spiritual and emotional void. In the clinical setting, this disconnection is further exacerbated, leaving patients feeling powerless and alienated, as they are removed from the familiar elements of their own Country and culture [8,18].

> *"When vision is lost, it is also a spiritual loss, because when one can no longer see the sun, the animals, and the trees, one gets disconnected from Mother Earth's elements"* [8].

The sense of belonging is closely tied to being on one's Country. Being away from it, especially in another tribe's territory, brings feelings of shame and displacement [18]. The spiritual significance of being on one's Country is paramount, as being in the "wrong Country" is seen as not only unwelcoming but spiritually detrimental:

> *"The Elder's like to go back home to die, our spirit. My spirit is happier in our Country. We end up in hospital and we want to run away. Our Elder want to run away coz he's very spiritual. In spirit world, if you go to the wrong Country you're not welcome, and you gotta leave"* [18].

A key Indigenous worker, Indigenous-specific program or community-based care can positively influence a patients' spiritual health [119] by providing cultural support as described in previous sections.

**Lifestyle changes**

Many diseases require lifestyle changes, but implementing and sustaining these changes can be challenging. A key Indigenous worker or Indigenous-specific program can influence a patients' physical health by aiding in lifestyle changes, but also their emotional, mental and spiritual health by providing emotional, practical and cultural support [119]. One study reported that patients quit smoking, a reduced their smoking behaviour, improved their diets, and decreased alcohol consumption during pregnancy after being educated on the topic by Aboriginal staff [3]. The opposite is illustrated by the finding in NZ study, [7] where a patient receiving SC describes feeling felt harassed by her healthcare provider, which made her hesitant to engage with a program that could otherwise have helped her to potentially stop smoking [7].

**Patient engagement**

A key factor contributing to patient engagement, like lifestyle changes and uptake of services, was patient trust in their healthcare provider or service. Positive experiences during hospitalisation and discharge, can enhance trust and patient engagement [3]. Several studies in this review show that patients who trust their providers felt more supported in making and maintaining healthier lifestyle choices [3,7,8]. Two Indigenous-specific clinics noticed a considerable increase in clinic attendance in the years following the start of the intervention [8,120]. One study found an immediate decrease in unplanned readmissions and ED presentations, an increase in Aboriginal patient identification and improved patient relationships after initiating the intervention [118], as is demonstrated by the following example:

> *"We had one Elder that came in that it took a while for him to get into hospital. However, once he was here and we did speak to him and we did support his progression here in the hospital. Once he was discharged, he went home happy and we got the feedback from [the ALO] that he has been trying to encourage other Aboriginals that he knows that are very sick to come in to hospital because we will help them and that we are providing a good service and acknowledging their culture and supporting their culture"* [118].

# 4 | Discussion

## 4.1 | Interpretation of results

The *six patient-reported experiences* of cultural safety interventions in secondary and tertiary healthcare institutions are highly interrelated and interdependent. A crucial element of an effective cultural safety intervention is creating *a feeling of safety and respect* within healthcare institutions [7,8,118–120]. Historical injustices like unethical medical experiments [60–62] and child-removal practices [14] have created a deep-rooted distrust in healthcare systems, exacerbated by ongoing systemic and interpersonal racism [16]. First Nations patients often encounter stigmatisation and discrimination, such as assumptions of being drug-seeking or alcohol dependent [8,119], leading to poor-quality care and further distrust. This distrust leads to a delay or avoidance in seeking healthcare [75] and combined with geographic barriers [8] limits access to healthcare, consequently worsening health conditions and reinforcing stereotypes [57]. Creating a safe and welcoming environment where First Nations people feel valued and their culture is respected is essential to breaking this cycle of systemic racism, less access and poor *health outcomes*.

Creating a *safe environment* where First Nations people feel respected and "accepted as whole human beings" [120] can be achieved through *acknowledgement of their culture*, providing *emotional support*, and *building rapport* [3,7,8,18,115–121]. The prevailing model of Western standard healthcare is incongruent with the First Nations peoples' preference for meaningful relationships [116,120], including those with their healthcare providers. Western healthcare is characterised by its fast-paced, time-pressured nature, often lacking the continuity of care that is vital for *establishing rapport* [121]. *Acknowledgement of Indigenous culture* can be accomplished by providing cultural safety training at the personal level or incorporation of cultural practices at the organisational level [3,7,8,18,115–121]. Cultural safety training among staff members can diminish stereotyping and stigmatisation and increases the likelihood of the *establishment of rapport*.

Key Indigenous workers are appreciated for the *emotional support* they provide, whether through compassionate care or by helping to voice concerns [3,7,115,118,119,121]. Additionally, key Indigenous workers play a critical role in helping patients understand their care plans, clarify follow-up actions, and connect with community and home care services, which enhances patient confidence and self-autonomy in *navigating the healthcare system* [3,7,115,118,119,121] .

First Nations people have significantly poorer health compared to their non-Indigenous counterparts [13,25–28]. *Rapport* with healthcare providers can *improve health outcomes* by making it more likely for patients to follow the care plan, make lifestyle changes, and engage with healthcare services in the future [3,7,8,119,120]. Positive care experiences enhance the *feeling of safety and respect*, increasing the likelihood of continued care and encouraging others in the community to seek healthcare services [118].

Healthcare systems in the CANZUS countries are designed around the dominant group's culture. Hence, equal treatment does not equate to equitable treatment, as it fails to account for the unique cultural, social, and health needs of the Indigenous population. While most findings like *feeling safe and respected* and *building rapport* are arguably not exclusive to First Nations patients, the *feeling of safety and respect* for White patients is not dependent on the *acknowledgment of their culture*, as White culture is the default. The Indigenous holistic concept of health demonstrates the interconnectedness of their culture with their well-being [107,110,111]. Therefore, the acknowledgement of Indigenous culture by things like incorporating cultural practices and providing cultural safety trainings is an essential element of equitable healthcare.

## 4.2 | Results in the context of other evidence

### First nations governance and community engagement

The Australian matrix to assess and monitor institutional racism [2] has five criteria: governance, policy implementation, service delivery, recruitment and employment and financial accountability. Although the matrix is tailored to Aboriginal and Torres Strait Islander anti-Indigenous racism, it could be of use in the CANZUS context as racialised minorities appear to share common experiences of racism [55]. The Aboriginal and Torres Strait Islander Quality Appraisal Tool (Appendix D) demonstrates that First Nations governance is missing in most of the interventions included in this review, except for two studies [8,116]. This could either be due to lack of reporting or lack of engagement with First Nations organisation or communities. Hassen's empirical conceptual model (figure 1) also includes an element of establishing community partnerships [91]. Involvement of First Nations people in the design, planning, and delivery of their healthcare is crucial for achieving optimal outcomes and ensuring cultural and clinical safety, without which healthcare initiatives and programs may fail to improve First Nations health outcomes effectively [2]. Community engagement is crucial due to the significant diversity within and among First Nations communities, making generalisations usually inappropriate [122,123]. Including a variety of local organisations, groups, and governance structures in the research process, both before and during the study, ensures that the various needs and interests of the participants are addressed, and interpretation and knowledge transfer are less influenced by researcher bias [122]. First Nations governance is ensured by giving community representatives ongoing input throughout the study and providing cultural and contextual knowledge. Community engagement and governance enhances the research's relevance and effectiveness by aligning it with community needs and perspectives, while improving service delivery, access and better health outcomes [124,125]. Additionally, community engagement and securing First Nations governance might lead to increased trust in the healthcare institution by improving and strengthening relationships between researchers, providers and community representatives.

### Patient navigation and employment of Indigenous staff

First Nations people consider Indigenous staff an essential element of culturally safe care [97]; they help reduce the incidence of discharge against medical advice, enhance the integration with other healthcare services, promote better compliance with post-discharge treatment plans [2,126], provide patient support and improve their overall healthcare journey [2,91]. This review strengthens the evidence of the value of First Nations staff. Key Indigenous workers provide a connection with culture, provide emotional and practical support, contribute to the healthcare institution being perceived as a safe and respectful place and improve therapy adherence or lifestyle changes [3,7,115,118,119,121]. However, some patients felt uneasy engaging with someone with a First Nations background, feeling uncomfortable to share their condition with someone familiar within their community [115]. This perception was reported in only one study in this review. Future research is necessary to confirm or refute this finding. Additionally, community engagement before and during the implementation of key Indigenous workers could help prevent such scenarios and inform decision-making. This review did not find evidence that key Indigenous workers reduced the incidence of self-discharge. Two studies reported on self-discharge [116,118], but one only speculated that positive experience might reduce self-discharge and lacked supporting evidence [118], while the other aggregated data from both First Nations and non-Indigenous populations, without a subgroup analysis of First Nations patients, precluding specific conclusions on discharge about First Nations [116].

## Cultural safety training

Previous research advises on all non-Indigenous staff to undergo cultural safety training to build trust and effectively care for First Nations patients, as many may lack the necessary knowledge to communicate and treat First Nations patients appropriately [2,96]. This review confirms the importance of cultural safety training; patients appreciate having culturally safe interactions, while also reporting on being stigmatised, mistreated and badgered by healthcare providers without having had cultural safety training [7,8,119,120]. Both patients and healthcare providers reported on misunderstandings due to cultural differences [7,18], underscoring the added value of cultural safety training. The few articles that included cultural safety related trainings, failed to specify the content. The Template for Intervention Description and Replication (TIDieR) checklist was created [127] including the goal, provider and frequency of the intervention, to enhance the thoroughness of reporting and ensure the reproducibility of interventions. This checklist can be used for reporting interventions in future research.

## Facilitation of cultural practices

Two Canadian studies provided access to spiritual and cultural practices, such as ceremonies and artefacts, as part of their intervention, and these were well-received [8,119]. Similar facilitation of cultural practices in healthcare settings in other countries have not been described in current literature, although a connection with Country and cultural identity are consistently noted in reviews as positively influencing the health and well-being of Aboriginal people [128]. Exploring the incorporation of rituals and ceremonies should involve community engagement and key Indigenous workers, if employed by the hospital, could play a crucial role in implementing and bridging the gap between the hospital and the community.

## Community-based interventions

First Nations people maintain strong ties to their communities and culture and often reside in rural or remote areas [8,18]. Healthcare utilisation is affected not only by sociocultural barriers [8] but also by experiences of racism [75]. Establishing community-based clinics could potentially reduce barriers to healthcare access among First Nations people, provided that these clinics ensure culturally safe care, as shown in the case of the teleophthalmology clinic [8]. Creating a culturally safe program is more practical in a community-based clinic than in a traditional urban hospital. Urban hospitals face strict regulations and serve diverse populations, making it challenging to accommodate specific cultural practices [8]. In addition, Conway confirms a previous finding [87] that their community-based intervention was perceived as significantly more valuable than any previous cultural training to their non-Indigenous staff [18]. A community-based secondary care clinic may incur higher costs due to limited economies of scale and high staffing costs for retainment of personnel, but these could be offset by reducing potentially preventable hospital admissions and lower overhead costs, potentially enhancing cost-effectiveness. Telehealth services, especially in specialties like ophthalmology and dermatology, can further reduce expenses.

## A multilevel and multistrategic approach

Most studies in this review used a multistrategic approach [3,8,116,118–121], but only four used a multilevel approach [3,18,116,120] (Appendix C). To achieve sustained change, anti-racism interventions should all levels: systemic, organisational and interpersonal [91]. A multilevel, multistrategic approach over an extended period can create sustainable adaptation. One-time interventions and tokenistic action should be avoided to prevent short-lived results [91]. Although the durability of the results of the interventions was not analysed in all included studies, some articles reported on increased patient attendance [8,120] or ongoing implementation of the intervention, suggesting a successful and durable approach [116,120].

## Monitoring and evaluation

Monitoring and evaluation can provide valuable data of the effectiveness and the sustainability of the interventions. In addition to clinical outcomes and quantitative outcomes such as numbers of self-discharge, readmission and clinic attendance, qualitative data from patient surveys or interviews should be included to assess patient-reported experiences or patient-reported outcomes of cultural safety and quality of care. Outcomes like self-discharge, clinic attendance and perceived quality of care can serve as proxies for culturally safe care within the First Nations context. By triangulating results, information can be cross-verified, inconsistencies can be identified, and a more nuanced understanding of how cultural safety impacts patient care can be developed. In this review, one Indigenous-specific maternity clinic triangulated their qualitative data by retrospectively comparing observational data of the clinic with standard care [121]. Compared to Aboriginal and Torres Strait Islander women receiving standard care, those attending the MC had better clinical outcomes in several domains (see Appendix B), adding to the qualitative data and strengthening their conclusion that health-related interventions are more effective when designed to align with the socio-cultural context [121].

First Nations peoples' perceived essential elements of culturally safe healthcare are contain four criteria [97]. Although this review included primary care institutions [97], these indicators correspond with other literature [2,91] and this review indicates that findings from these observational studies are consistent with and validated by this study. Therefore, the anti-racism model [91] and matrix [2], and the recommendations in this review could be used as criteria for implementation, monitoring and evaluation of cultural safety interventions.

## No-appointment policy

The American Indian-specific clinic, situated within the ED, operated without requiring appointments and was unique in its approach [120]. An Australian study reports on patient frustration with the rigid opening hours of their clinic and the necessity to make appointments, which were not well-received [121]. Allowing for a few walk-in hours per week or moments per day or expanding the service to additional days could potentially meet the needs of First Nations patients while minimising disruption to the clinic's schedule.

## Name-dropping

Name-dropping is mentioned by one study as a successful practice in the American Indian context [120]. Mentioning names from the same community as the patient was considered to be comforting. However, this article dates to 1986, and the situation has evolved since then. Name-dropping, especially in the context of building relationships with First Nations communities, can be seen as disrespectful or intimidating [129] . Assuming familiarity or respect based on a name can often distract from genuine connection-building efforts [129].

## Use of interpreters

Although interpreters have been recognised as a means to improve cultural safe healthcare delivery [130], they are not included in any of the interventions in this review. However, several key Indigenous workers conversed in local Indigenous languages, which patients appreciated [7,8]. This improved communication, though it is unclear whether the improvement was due to overcoming language barriers or clarifying health-related information from healthcare providers [7].

## 4.3 | Limitations of the evidence included in the review

Inconsistent terminology

While Hassen advises against using euphemisms for anti-racism [91], I have opted to predominantly use 'cultural safety' rather than 'anti-racism'. This is because 'cultural safety' encompasses a broader range of factors relevant in the Indigenous context, including culture and gender, in addition to race, thus providing a more comprehensive, intersectional approach. Related concepts like 'cultural awareness,' 'cultural competence' and 'cultural safety' lack uniform definitions in contemporary literature, including the articles in this review. Except for one study [3], cultural safety-related concepts were not explicitly defined, and terminology was often used interchangeably. There is a significant overlap in meaning, and without precise definitions, conclusions like 'improved cultural competence' remain ambiguous and subject to individual interpretation. Variations in definitions and interchangeable use can compromise research quality by introducing concerns about validity, comparability and generalisation.

Downing compared various theories and terminologies underlying different forms of cultural training and illustrated these in Figure 3 [6]. As cultural safety covers both the health system and healthcare providers and focuses on adapting service delivery processes rather than merely developing knowledge, it is recommended for future use when referring to service delivery on both the individual and institutional level. Given the context-dependent nature of these concepts, which may vary among First Nations tribes, it is advisable to explicitly define important research concepts in collaboration with the Indigenous community.

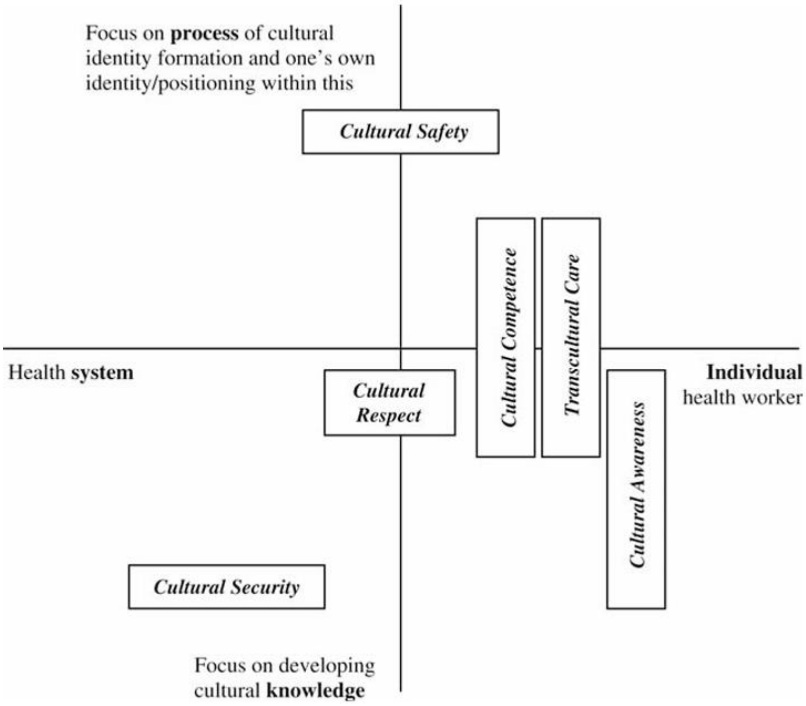


*Figure 4. "A comparison of theoretical models underlying indigenous cultural training" by Downing* [6]

### Social desirability bias

Social desirability bias may have influenced the studies by causing participants to give more socially acceptable or favourable responses rather than their true feelings, potentially leading to an overestimation of the effectiveness or acceptance of cultural safety interventions. However, the influence of this bias may be less pronounced in this review of PREMs compared to clinican-reported outcomes, such as those evaluating post-intervention implicit and explicit bias in healthcare staff [54]. In addition, triangulation of data can mitigate social desirability bias by using multiple data sources, such as interviews, surveys, and observational data.

### Quality appraisal tool

Many studies provided inadequate evidence to the questions of the Aboriginal and Torres Strait Quality Appraisal Tool (Appendix D), leading to an overall 'Unclear' marking. Nonetheless, this issue was also present in several articles co-authored by Indigenous authors. This suggests that publication practices are still dominated by White values, despite the focus of the research being First Nations people. Health research plays a crucial role in improving health outcomes by identifying and addressing health inequities. However, there is a long history of health research exploiting Indigenous communities [131]. To genuinely enhance Indigenous health outcomes, it is essential to employ research methodologies that acknowledge the harmful impacts of colonisation and prioritise Indigenous participation, knowledge, and priorities. To prevent conducting research "on" First Nations people and therefore reinforcing geopolitical dominance by non-Indigenous institutions, future reporting of research should be guided by principles in the tool [102], or the CONSIDER-statement [131],  a checklist with criteria to enhance the reporting of Indigenous health research.

## 4.4 | Limitations of the review processes

### Indigeneity

An important limitation of this study is the primary (AB) and secondary (SL) researcher's non-Indigeneity, especially given that this review focuses on the First Nations patient-reported experiences. I applied an Indigenous framework to aim for a decolonising approach to this review. In addition, the meta-aggregative approach aims to avoid data reinterpretation, thereby minimising the impact of reviewer bias [100]. While I cannot eliminate the influence of our Western paradigm, it is arguably less pronounced than it would have been with a meta-ethnographic approach.

### Confirmation bias

Confirmation bias could have impacted the selection, interpretation and synthesis of this review. In addition, the studies in the review may unintentionally have focused on data that aligned with pre-existing beliefs while overlooking contradictory evidence.

### Representation of countries and generalisability

The majority of studies were conducted in Australia, leading to an overrepresentation of Aboriginal and Torres Strait Islanders perceptions. Four studies represent First Nations people on the North American continent. Māori were underrepresented with one article. First Nations people in the CANZUS countries share a similar history of colonisation and oppression and display comparable patterns of health disparities [16,20–24]. However, both the differences between First Nations people between these countries and the tribal differences within each country can complicate the generalisation of research results and should therefore be done with caution. Australia has over 500 distinct Aboriginal and Torres Strait Islander tribes [11]. North America is home to over 1,000 First Nations and American Indian tribes, with 573 federally recognised in the USA [132] and over 600 recognised First Nations, Métis, and Inuit communities in Canada [10]. In NZ, the Māori people are divided into approximately 100 iwi (tribes) [12]. All these First Nations tribes have their own unique identity, history, cultural practices and traditions and in most cases, speak their own language [132]. These elements affect health and disease distribution; thus, policies and programs aimed at eliminating health disparities should be tailored to local contexts for maximum effectiveness. Aggregating data across tribes and countries can obscure important health disparities within and between these. However, studying the aggregate First Nations experience is sometimes considered appropriate, such as when assessing the impacts of racism on First Nations collectively, or culturally safe care provision. In these cases, it is the system's racism and its outcomes that are evaluated, not the “race” of the people affected [123].

# 5 | Conclusion & recommendations

## 5.1 | Summary

This systematic meta-aggregative mixed methods review aimed to investigate the First Nations patient-reported experiences of anti-racism, anti-discriminatory, prejudice-reducing and cultural safety promoting interventions for secondary and tertiary healthcare institutions in the CANZUS countries. Several systematic reviews have been conducted on cultural safety, anti-racism or other related interventions, but this is to my knowledge the first review to synthesise patient-reported experiences of these interventions.

Prior research on anti-racism or cultural safety interventions regularly include primary healthcare settings [88,92,93] and may not be directly applicable or feasible in secondary or tertiary care settings. In addition, studies evaluating the interventions often measure effectiveness through quantitative health outcomes, such as higher rates of uncomplicated births or improved clinic attendance [121], or measure post-intervention clinician-reported outcomes, like through implicit bias assessments, which are influenced by social desirability bias [65]. Indigenous ontologies and epistemologies differ from Western frameworks, as demonstrated by Indigenous holistic health paradigms [107,110,111]. Failing to triangulate data by incorporating PREMs into evaluating interventions aimed at enhancing cultural safety is problematic because it overlooks the experiential realities and unique needs of the populations directly affected by these interventions. Such oversight can result in the development and implementation of interventions that are misaligned with the cultural contexts and lived experiences of First Nations communities. Therefore, triangulation data is essential to evaluate intervention effectiveness. The relatively small number of articles in this review with patient-reported experiences reflects the neglect in the inclusion of First Nations perspectives in anti-racism and cultural safety research.

The six First Nations patient-reported experiences of cultural safety interventions in secondary and tertiary healthcare institutions in the CANZUS countries are feeling safe and respected, acknowledgment of culture, navigating the system, emotional support, creating rapport, and health improvements. These results are largely consistent with prior observational literature [2,91,96], including primary care institutions [97], which validates the findings from these studies. Most synthesised findings of this review may not be exclusive to Indigenous patients. However, the feeling of safety and respect for White patients is not dependent on the acknowledgment of their culture, as White culture is the default. Cultural and spiritual health is a vital part of Indigenous well-being [107,110,111,128] which makes the acknowledgement of Indigenous culture by Indigenous presentation in the workforce, cultural safety trainings or incorporation of cultural practices an essential element of equitable healthcare.

## 5.2 | Recommendations for policy implementation

The policy recommendations for the implementation of cultural safety interventions in secondary and tertiary healthcare institutions that derived from this meta-aggregative review are as follows:

1. **Ensure community engagement and governance**
   Community engagement is essential due to the diverse nature of First Nations communities, which makes broad generalisations generally unsuitable [122,123]. Ensuring First Nations governance by integrating community representatives' input and cultural knowledge throughout the study enhances the interventions relevance, effectiveness, and alignment with community needs [2,122]. This approach not only improves service delivery and health outcomes but also fosters trust between researchers, providers, and community representatives. The Aboriginal and Torres Strait Islander Quality Appraisal Tool [102,131] or CONSIDER statement [131] could be used for guidance to guarantee First Nations research values are followed.

2. **Provide organisation-wide cultural safety training**
   Cultural safety training should be available organisation-wide and mandatory for all non-Indigenous healthcare providers, including allied professionals. It is recommended that training not be a one-off event but rather include regular and repeated refreshing courses [2,91], workshops or discussion groups. Audits focusing on First Nations patient cases can effectively enhance the quality of care and promote cultural safety within hospitals, addressing both interpersonal and institutional levels. It is recommended that elements of the cultural safety training be reported using the TIDieR checklist [127].

3. **Facilitate access to cultural practices and support**
   First Nations peoples' perceptions of health may differ markedly from those of non-Indigenous individuals, as they adopt a holistic view that integrates and interconnects mental, physical, emotional, and spiritual dimensions [110,111]. Incorporating cultural and spiritual practices can enhance spiritual well-being. Additionally, allowing for cultural practices such as smudging or smoking ceremonies demonstrates respect for First Nations culture, contributing to a healthcare institution that is perceived as culturally safe [119]. Cultural and spiritual support has been valued by First Nations people in Canada and the USA and could be explored in Australia and New Zealand. This support can be provided by dedicated First Nations staff, such as key Indigenous workers, or potentially by Elders or community leaders. Community consultation can offer valuable insights for incorporating the most effective approach to implementing cultural and spiritual guidance.

4. **Focus on establishment of rapport**
   Positive staff relationships enhance trust in the healthcare institution and the overall healthcare system. Continuity of care is a significant factor in building these relationships [121]. Although not unique to First Nations people, meaningful relationships are especially important for Indigenous patients and are closely linked to their sense of safety and respect within healthcare settings. Time constraints can hinder the development of these relationships; therefore, allowing more time for relaxed conversations or using a 'yarning-style' approach can be beneficial to establish rapport.

5. **Explore possibilities of community-based care**
   Possibilities of secondary or tertiary community-care can be explored. Community-based clinics or interventions alleviate geographical and financial barriers [8] and hence increase access and healthcare utilisation. Positive care experiences can help erode systemic distrust and potentially positively influence health-seeking behaviour despite large geographical distances. Additionally, especially for First Nations people, the connection to their land or Country is of highly spiritual significance [112–114].

   Community-based clinics or interventions require dedication and come with increased healthcare costs. However, while short-term costs may be high, it can be argued that long-term savings will result from improved health outcomes due to increased healthcare utilisation. Timely healthcare utilisation allows for secondary prevention, which ultimately reduces costs by preventing conditions from worsening and necessitating more expensive treatments.

6. **Employ a key Indigenous worker**
   Key Indigenous workers can be employed as patient navigator, ALO/ILO or other. Increased Indigenous representation in the workforce not only contributes to a welcoming and safe environment but also enhances the quality of healthcare [2,3,115]. Key Indigenous workers can improve communication and provide emotional, practical, instrumental and spiritual support [7,115,119]. Additionally, patient navigators improve patients' understanding of the system and strengthen their confidence [3,7,115,118,119].

7. **Use multilevel, multistrategic approach**
   Implementing interventions on both the personally-mediated level as well as the institutional level will strengthen overall outcomes and can prevent short-lived results [91]. While targeting biases and behaviours at the personally-mediated level, policy adaptations inclusive of First Nations values and the incorporation of culturally safe practices and environments can address the institutional level. This approach creates a more resilient system by working in symbiosis, addressing both individual and structural factors.

8. **Monitor & evaluate First Nations patient-reported experiences**
   Continuous monitoring and evaluation are essential for quality improvement by optimising the effectiveness of cultural safety interventions. This necessitates the systematic collection of input from First Nations patients, in addition to other data. Triangulation integrates qualitative and quantitative data and different data sources, such as health outcomes, clinician-reported outcomes, and PREMs, enables cross-verification of information, identification of discrepancies, and a nuanced understanding of the impact of cultural safety on patient care. This method not only highlights areas for improvement but also ensures that interventions are responsive to the needs and experiences of First Nations communities.

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# Appendix A – Search terms

## PubMed - 11-2-2024

1. "Indigenous Peoples"[Mesh:NoExp] OR "American Indian or Alaska Native"[Mesh:NoExp] OR "Indians, North American"[Mesh] OR "Australian Aboriginal and Torres Strait Islander Peoples"[Mesh] OR "Oceanians"[Mesh] OR "Maori People"[Mesh] OR "Native Hawaiian or Other Pacific Islander"[Mesh]
**(33,077 results)**

2. “First Nation*”[Title/Abstract] OR Indigen*[Title/Abstract] OR Aborigin*[Title/Abstract] OR “Torres Strait*”[Title/Abstract] OR Eskimo*[Title/Abstract] OR Inuit*[Title/Abstract] OR Metis*[Title/Abstract] OR “Indigenous Australian*”[Title/Abstract] OR “First Australian*”[Title/Abstract] OR “Native Australian*”[Title/Abstract] OR “Indigenous Canadian*”[Title/Abstract] OR “Native Canadian*”[Title/Abstract] OR “Native America*”[Title/Abstract] OR Maori*[Title/Abstract] OR “American Indian*”[Title/Abstract] OR Amerindian*[Title/Abstract] OR “Alaskan Native*”[Title/Abstract] OR “Native Alaska*”[Title/Abstract] OR “Alaska Native*”[Title/Abstract] OR “Native Hawaiian*”[Title/Abstract] OR “on-reserve” [Title/Abstract] OR “off-reserve” [Title/Abstract] OR tribal[Title/Abstract] OR “First People*”[Title/Abstract] OR “Native People*”[Title/Abstract] OR “Native Population*”[Title/Abstract] OR tribes[Title/Abstract] OR Tiwi[Title/Abstract] OR “Tangata Whenua”[Title/Abstract] OR Aleut*[Title/Abstract] OR Autocht*[Title/Abstract] OR Inuk[Title/Abstract]
**(105,776)**

3. 1 OR 2 **(115,137)**

4. "Antiracism"[Mesh] OR "Racism"[Mesh] OR "Bias, Implicit"[Mesh] OR "Stereotyping"[Mesh] OR "Prejudice"[Mesh:NoExp] OR "Xenophobia"[Mesh] OR "Social Discrimination"[Mesh:NoExp] OR "Perceived Discrimination"[Mesh] OR "Cultural Competency"[Mesh] OR "Attitude of Health Personnel"[Mesh] OR "Respect"[Mesh]
**(216,976)**

5. antiracis*[Title/Abstract] OR “anti racis*”[Title/Abstract] OR racis*[Title/Abstract] OR discrim*[Title/Abstract] OR stereotyp*[Title/Abstract] OR bias*[Title/Abstract] OR prejud*[Title/Abstract] OR hostil*[Title/Abstract] OR harass*[Title/Abstract] OR “equal treat*”[Title/Abstract] OR “unequal treat*”[Title/Abstract] OR “fair treat*”[Title/Abstract] OR “unfair treat*”[Title/Abstract] OR oppress*[Title/Abstract] OR “cultural safe*”[Title/Abstract] OR “cultural secur*”[Title/Abstract] OR “cultural aware*”[Title/Abstract] OR “cultural sensitiv*”[Title/Abstract] OR “cultural competenc*”[Title/Abstract] OR “cultural understanding”[Title/Abstract] OR "culturally safe"[Title/Abstract] OR "culturally aware"[Title/Abstract] OR "culturally competent"[Title/Abstract] OR "culturally secure"[Title/Abstract] OR "culturally appropriate"[Title/Abstract] OR bigot*[Title/Abstract] OR "culturally sensitive"[Title/Abstract]
**(729,273)**

6. 4 OR 5 **(916,944)**

7. "Psychosocial Intervention"[Mesh] OR "Internet-Based Intervention"[Mesh] OR "Evidence-Based

Practice"[Mesh] OR "Policy"[Mesh] OR "Clinical Trial" [Publication Type]
**(1,271,120)**

8. intervention*[Title/Abstract] OR strateg*[Title/Abstract] OR polic*[Title/Abstract] OR approach*[Title/Abstract] OR framework* [Title/Abstract] OR program*[Title/Abstract] OR trial*[Title/Abstract] OR train*[Title/Abstract] OR “before and after” [Title/Abstract] or “interrupted time series” [Title/Abstract] OR evaluat*[Title/Abstract] OR audit*[Title/Abstract]
**(10,526,791)**

9. 7 OR 8 **(10,982,165)**

10. "Health Personnel"[Mesh] OR "Health Facilities"[MeSH:noexp] OR "Academic Medical Centers"[MeSH] OR "Ambulatory Care Facilities"[MeSH] OR "Birthing Centers"[MeSH] OR "Fertility Clinics"[MeSH] OR "hospitals, proprietary"[MeSH] OR "Hospital Administration"[MeSH] OR "Hospital Units"[MeSH] OR "Hospitals"[MeSH] OR "laboratories, hospital"[MeSH]
**(1,309,612)**

11. hospital*[Title/Abstract] OR “secondary health centre*”[Title/Abstract] OR “tertiary health centre*”[Title/Abstract] OR “secondary health center*”[Title/Abstract] OR “tertiary health center*”[Title/Abstract] OR “secondary health facilit*”[Title/Abstract] OR “tertiary health facilit*”[Title/Abstract] OR “secondary health service*”[Title/Abstract] OR “tertiary health service*”[Title/Abstract] OR “secondary health institution*”[Title/Abstract] OR “tertiary health institution*”[Title/Abstract]
OR
“secondary health care centre*”[Title/Abstract] OR “tertiary health care centre*”[Title/Abstract] OR “secondary health care center*”[Title/Abstract] OR “tertiary health care center*”[Title/Abstract] OR “secondary health care facilit*”[Title/Abstract] OR “tertiary health care facilit*”[Title/Abstract] OR “secondary health care service*”[Title/Abstract] OR “tertiary health care service*”[Title/Abstract] OR “secondary health care institution*”[Title/Abstract] OR “tertiary health care institution*”[Title/Abstract]
OR
“secondary healthcare centre*”[Title/Abstract] OR “tertiary healthcare centre*”[Title/Abstract] OR “secondary healthcare center*”[Title/Abstract] OR “tertiary healthcare center*”[Title/Abstract] OR “secondary healthcare facilit*”[Title/Abstract] OR “tertiary healthcare facilit*”[Title/Abstract] OR “secondary healthcare service*”[Title/Abstract] OR “tertiary healthcare service*”[Title/Abstract] OR “secondary healthcare institution*”[Title/Abstract] OR “tertiary healthcare institution*”[Title/Abstract]
**(1,696,934)**

12. 10 OR 11 **(2,591,386)**

13. 3 AND 6 AND 9 AND 12 **(1,095)**

# Appendix B – Study characteristics

| Author and year of publication | Country | Setting and context | Study aim | Study design and data collection | Participants / population eligibility criteria | Total sample size | Percentage of Indigenous | Intervention, tool or program | Quantitative results |
|---|---|---|---|---|---|---|---|---|---|
| **Arora et al., 2013** | Canada | Remote tele-ophthalmology clinic serving patients from Wood Buffalo, a Cree community in Northern Alberta. | To determine whether tele-ophthalmology services, provided to Aboriginal Canadians in a culturally sensitive community-based clinic, could overcome social and cultural barriers in ways that would be difficult in the traditional hospital-based setting. | Qualitative – surveys and observational data collection. | Aboriginal patients and staff: cultural liaison, nurses and program administrators. | 10 people: 5 patients, 2 program administrators, 1 nurse from the hospital, 1 nurse from the remote clinic and 1 spiritual liaison of the Aboriginal community. | Not reported – presumably 100%. | Aboriginal Diabetes Wellness Program (ADWP); tele-ophthalmology clinic with a focus on educating Aboriginal people about diabetes, healthy lifestyle choices while providing medical screening tests. Nurses fluent in Cree were hired from the local communities. Religious/cultural artifacts were included in clinic screening protocols. Before and after every clinic, ceremonies were held under the guidance of an invited spiritual leader from the community. | Aboriginal appointment attendance rate increased to 50% (from the initial 20%), and later 85%. The average number of patients attending the ADWP clinic rose from five to eighteen. |
| **Bernardes et al., 2017** | Australia | A major public hospital in Queensland. | To describe and reflect upon the experience of training an Indigenous Patient Navigator (IPN) and implementation of the intervention in the Australian context with Indigenous cancer patients. | Qualitative – survey with 7 closed and<br>5 open-ended questions. | Patients ≥18 years, identifying as Aboriginal and / or Torres Strait Islander, and a cancer diagnosis. | 18 patients. | 100% | The Indigenous Patient Navigator: the IPN combines patient navigation, cancer education, and communication coaching to improve patient outcomes for Indigenous people diagnosed with cancer. | None. |

ADWP = Aboriginal Diabetes Wellness Program, AMGPP = Aboriginal Maternal Group Practice Program, AMS = Aboriginal Medical Service, ATOC = Aboriginal Transfer of Care, ED = Emergency Department, EQUIP = Equipping Health Care for Equity, IBSW = Indigenous Birth Support Woker, IPN = Indigenous Patient Navigator, JPCH = Jim Pattison Children's Hospital, GP = General Practitioner, MGH = Massachusetts General Hospital, OT = Operating Theatre, UHNBC = University Hospital of Northern British Columbia.

| Author and year of publication | Country | Setting and context | Study aim | Study design and data collection | Participants / population eligibility criteria | Total sample size | Percentage of Indigenous | Intervention, tool or program | Quantitative findings |
|---|---|---|---|---|---|---|---|---|---|
| **Bertilone et al., 2017** | Australia | Aboriginal Maternity Group Practice Program (AMGPP) in south metropolitan Perth. | To identify elements of the Aboriginal Maternity Group Practice Program that contributed to the provision of a culturally competent service. | Qualitative – surveys (with clients and program partners) and interviews (with staff). | Health care staff, clients and program partners. | There was a total of 53 participants in the study (15 staff, 16 clients and 22 individuals from 14 partner organisations). | 31 (58%) - Seven staff, all 16 clients, and 8 individuals from partner organisations were Aboriginal. | Multicomponent "Aboriginal Maternity Group Practice Program": grandmother role, Aboriginal online cultural learning package, cultural awareness training. | 16/16 clients surveyed stated they would recommend the program. 7/16 stated the employment of Aboriginal staff in the program was a program strength. 15/16 stated that the Aboriginal Health Officers, Grandmothers and midwives worked together effectively. 1/16 stated that a strength of the Grandmother role was being able to work in partnership with the midwife. 9/16 stated that accessing antenatal appointments had become easier as a result of participating in the program, 3/16 disagreed. Satisfaction levels were high, with transport, home visits, and working with Aboriginal staff being the most appreciated. |
| **Blignault et al. 2021** | Australia | An Aboriginal Transfer of Care (ATOC) model from hospital (Campbelltown Hospital and Liverpool Hospital in Sydney) to primary care. | To explore patient, family and service provider experiences and views and to document and refine the model of care for Aboriginal adults with chronic conditions. | Qualitative - semi-structured interviews. | Aboriginal patients and their family / carers, ATOC team members, other hospital staff and community-based service providers from government agencies and non-government organisations. | 49 people: 10 ATOC team members, 20 other hospital staff; 9 community-based service providers; 10 patients and family carers. | 8/49 patients, unknown number of Aboriginal Liaison Officers. | The ATOC model: Transfer of care planning by a multidisciplinary team; Ensuring the patient and their family understand the follow-up care plan; Ensuring patient's General Practitioner or Aboriginal Medical Service (AMS) is aware of any follow-up arrangements;<br>Ensuring referrals are organised with community providers; Ensuring the patient has the necessary medications, equipment and written patient summary information prior to transfer of care. | The pilot study at Campbelltown Hospital showed an immediate effect, recording a steady decrease in Aboriginal patient unplanned readmissions and Emergency Department (ED) presentations over 4 months, as well as an increase in Aboriginal patient identification in ED. |

ADWP = Aboriginal Diabetes Wellness Program, AMGPP = Aboriginal Maternal Group Practice Program, AMS = Aboriginal Medical Service, ATOC = Aboriginal Transfer of Care, ED = Emergency Department, EQUIP = Equipping Health Care for Equity, IBSW = Indigenous Birth Support Woker, IPN = Indigenous Patient Navigator, JPCH = Jim Pattison Children's Hospital, GP = General Practitioner, MGH = Massachusetts General Hospital, OT = Operating Theatre, UHNBC = University Hospital of Northern British Columbia.

| **Author and year of publication** | **Country** | **Setting and context** | **Study aim** | **Study design and data collection** | **Participants / population eligibility criteria** | **Total sample size** | **Percentage of Indigenous** | **Intervention, tool or program** | **Quantitative findings** |
|---|---|---|---|---|---|---|---|---|---|
| **Conway et al., 2013** | Australia | Mobile Dialysis Truck in remote north-west South Australia. | To qualitatively evaluate the South Australian<br>Mobile Dialysis Truck program, its impact on the health and wellbeing of Indigenous dialysis patients, and the<br>facilitators and barriers to using the service | Qualitative – in-depth interviews with staff, yarning with patients, exploratory methodology. | Indigenous haemodialysis patients and staff who had attended trips on the dialysis bus, across nine dialysis units. | 25; 15 Indigenous patients and 10 nurses. | Patients 100%, nurses unclear. | A Mobile Dialysis Truck, allowing Indigenous dialysis patients forced to relocate for dialysis to visit their home communities for significant events (such as funerals and cultural ceremonies) and to spend time with family and friends. | None. |
| **Kildea et al., 2012** | Australia | Indigenous-specific antenatal "Murri Clinic" (MC) in a tertiary Brisbane hospital. | To identify the strengths and challenges of the MC and make recommendations for future development. | Triangulation mixed method approach – individual and focus group interviews, surveys, mother and infant audit data and routinely collected data (from hospital databases). | MC staff and service users; hospital managers and staff; and relevant community stakeholders, and representatives from a variety of community organisations including two AMSs. | Qualitative - 220 in total: 46 service users (38 completed surveys, eight interviews); 157 staff (147 completed surveys, ten interviews); 17 external stake holders.<br>Quantitative - 367 women attending the MC and 414 (Indigenous) women attending standard care (SC). | Up to 100% of the service users (some women attending the MC had an Indigenous partner).<br>(46/220 = 21%) | The "Murri Clinic": a specialist antenatal Indigenous-specific clinic with a hospital-employed Indigenous midwife and Indigenous liaison officers. | 92% of women felt 'mostly understood and respected' by staff whilst attending the MC. vs 31-47% about other hospital locations. 6-14% women stated they felt 'not at all understood' or 'respected' in other hospital locations.<br>Compared to Indigenous women who attended SC, women who attended the MC were statistically less likely to experience perineal trauma, undergo an elective caesarean section, and have a baby admitted to the NICU (Neonatal Intensive Care Unit). Women attending the MC attended less ANC visits at the hospital, Women attending the MC had fewer ANC visits at the hospital, but accurate records of visits with other providers lacked.<br>Multivariate analysis found that Indigenous women who attended the MC were significantly more likely to have a normal birth with no statistically significant difference seen for preterm birth or admission to the NICU. |

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| Author and year of publication | Country | Setting and context | Study aim | Study design and data collection | Participants / population eligibility criteria | Total sample size | Percentage of Indigenous | Intervention, tool or program | Quantitative findings |
|---|---|---|---|---|---|---|---|---|---|
| **Masters-Awatere et al., 2019** | New Zealand | Whānau of tamariki Māori admitted to Waikato hospital regarding their experience of hospital care. | To explore<br>the health-related experiences of whānau Māori with a child aged<br>0–5 years admitted to the hospital. | Qualitative – in-depth interviews with participants from the mixed-methods randomised control trial. | Whānau of tamariki Māori aged 0–5 years admitted to the hospital and whose hospital admission included experience of the Harti tool and whānau who experienced usual care; whānau had to meet at least one criterion for New Zealand's domains of deprivation. | 15. 7 whānau whose hospital admission included experience of the Harti Hauora Tamariki tool and 8 whānau who experienced usual care. | Not reported – presumably 100%. | Utilisation of the Harti tool (a whānau ora-based assessment instrument designed to reduce health inequities) during inpatient care and delivered by research assistants using a Kaupapa Māori-centred intervention. | None. |
| **Pandey et al., 2023** | Canada | Jim Pattison Children's Hospital (JPCH) Maternal Care Centre in Saskatoon, Saskatchewan. | To explore the perspectives of Indigenous Birth Support Workers (IBSW) and program clients one year post-implementation. | Qualitative – interviews and focus groups. | Four IBSWs and clients. | 10 clients. | Not reported, presumably 100% (or less if Indigenous babies born to non-Indigenous mothers). | The IBSW Program provides Indigenous women with respectful, culturally safe, and trauma-informed care throughout labour, delivery and postpartum. | None. |
| **Peake et al., 2024** | Australia | The Operating Theatre (OT) of Royal Darwin Hospital. | To assess the acceptability<br>and potential benefits of introducing personalised, Indigenous art-themed reusable theatre caps (including name and role) for staff in the OT at Royal Darwin Hospital on staff communication and the patient perioperative experience. | Uncontrolled before-after study – surveys. | OT staff and patients undergoing surgery. | 9 Indigenous patients completed the before-survey, 14 Indigenous patients completed the after-survey. | Pre-intervention survey:<br>9/51 patients (18%)<br>Post intervention - survey:<br>14/54 patients (26%) | Personalised operating theatre caps with staff name and role and Indigenous artwork. | The majority of patients surveyed reported the personalised theatre caps to be helpful (90%, 95% CI 81–99) and felt more comfortable because staff were wearing them (91%, 95% CI 82–100). These results were consistent across Indigenous and non-Indigenous patients. |

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| Author and year of publication | Country | Setting and context | Study aim | Study design and data collection | Participants / population eligibility criteria | Total sample size | Percentage of Indigenous | Intervention, tool or program | Quantitative findings |
|---|---|---|---|---|---|---|---|---|---|
| **Varcoe et al., 2022** | Canada | Emergency Department (ED) at 3 hospitals: 1) serving an urban area, 2) serving a large suburban area, and 3) serving a region of rural, remote, and small urban communities. | Not clearly defined - EQUIP Emergency is a study of an organisational-level intervention (in contrast to interventions aimed at individual service providers) to improve care quality at the point of care for those who face health inequities. | Quantitative longitudinal panel design – patient and staff surveys and<br>administrative data. | Every consecutive patient over age 18 presenting to the EDs. | 3,315 First Nations and non-Indigenous patients. | 560 patients (17.1%) | Intervention activities varied in type and duration at each site. Examples include: work to improve patient way-finding, equity-oriented messaging in waiting room televisions, improving signage at triage, installing TV monitors with equity-oriented and anti-stigma messages, and partnering with the hospital Indigenous health team and local Indigenous communities and an artist to commission and install artwork to create an improved patient environment in the waiting room. | At the University Hospital of Northern British Columbia (UHNBC), people who identified as Indigenous (β = −0.13, p <.001), who were unemployed (β = −0.16, p <.001), younger (β = 0.20, p <.001) and those experiencing financial strain (β = −0.13, p <.001) reported lower perceptions of quality of care at all time points. |
| **Yukl, 1986** | USA | Indian Clinic within the Emergency Ward at Massachusetts General Hospital (MGH) in Boston. | To describe the author's experience as co-founder and director of the MGH American Indian Clinic. | Qualitative – case study, observational data. | American Indian people attending the Indian Clinic. | One group of initially 34 American Indian people. | 100% | Indigenous-specific clinic. | Initially a group of 34 people after one year of operation. Twelve years later 276 people representing 28 different American Indian nations, about 70% being Mi'kmaq. |

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# Appendix C - Intervention types

| **Author and year of publication** | **Intervention types** | **Strategy** | **Level** | **(Predominant) study focus / terminology** |
|---|---|---|---|---|
| **Arora et al., 2013** | • Indigenous-specific clinic<br>• Community-based program<br>• Employment of Indigenous staff<br>• Facilitation of cultural practices | Multi | Institutional | Cultural sensitivity |
| **Bernardes et al., 2017** | • Key Indigenous worker (Indigenous Patient Navigator)<br>• Employment of Indigenous staff<br>• Patient navigation | Single | Institutional | Cultural appropriateness |
| **Bertilone et al., 2017** | • Indigenous-specific program<br>• Key Indigenous worker (Grandmother)<br>• Employment of Indigenous staff<br>• Cultural safety training | Multi | Institutional and personally-mediated | Cultural competence |
| **Blignault et al., 2021** | • Indigenous-specific program<br>• Key Indigenous worker (Aboriginal Liaison Officer)<br>• Multidisciplinary transfer of care planning<br>• Patient navigation<br>• Partnering with Indigenous community | Multi | Institutional | Unclear – Cultural safety & cultural security mentioned |
| **Conway et al., 2013** | • Community-based program<br>• Indigenous-specific program<br>• Facilitation of cultural practices | Single | Institutional and personally-mediated | Unclear – Cultural safety & cultural competence mentioned |
| **Kildea et al., 2012** | • Indigenous-specific clinic<br>• Key Indigenous worker (Indigenous Liaison Officer)<br>• Employment of Indigenous staff<br>• Patient navigation | Multi | Institutional | Unclear – Cultural awareness & cultural safety mentioned |
| **Masters-Awatere et al., 2019** | • Indigenous-specific program<br>• Key Indigenous worker (Research Assistant)<br>• Patient navigation | Single | Institutional | Cultural appropriateness |
| **Pandey et al., 2023** | • Indigenous-specific program<br>• Key Indigenous worker (Indigenous Birth Support Worker)<br>• Employment of Indigenous staff<br>• Patient navigation<br>• Facilitation of cultural practices | Multi | Institutional | Cultural safety & cultural humility |
| **Peake et al., 2024** | • Indigenous Operating Theatre caps | Single | Institutional | Cultural competence |
| **Varcoe et al., 2022** | • Formation of working groups<br>• Cultural safety training<br>• Improving patient-wayfinding<br>• Equity-oriented messaging<br>• Anti-stigma messaging<br>• Indigenous artwork<br>• Partnering with Indigenous community | Multi | Institutional and personally-mediated | Cultural safety |
| **Yukl, 1986** | • Indigenous-specific clinic<br>• Cultural safety training<br>• Indigenous artwork<br>• No-appointment policy | Single | Institutional and personally-mediated | Cultural responsiveness |

# Appendix D – Quality appraisal

## The modified Aboriginal and Torres Strait Islander Quality Appraisal Tool

| | Did the research respond to a need or priority determined by the community? | Was community consultation and engagement appropriately inclusive? | Did the research have Indigenous research leadership? | Did the research have Indigenous governance? | Were local community protocols respected and followed? | Did the researchers negotiate agreements in regards to rights of access to Indigenous peoples existing intellectual and cultural property? | Did the researchers negotiate agreements to protect Indigenous peoples' ownership of intellectual and cultural property created through the research? | Did Indigenous peoples and communities have control over the collection and management of research materials? | Was the research guided by an Indigenous research paradigm? | Does the research take a strengths-based approach, acknowledging and moving beyond practices that have harmed Indigenous peoples in the past? | Did the researchers plan and translate the findings into sustainable changes in policy and/or practice? | Did the research benefit the participants and Indigenous communities? | Did the research demonstrate capacity strengthening for Indigenous individuals? | Did everyone involved in the research have opportunities to learn from each other? | Summary |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Arora et al., 2013** | N | P | U | U | Y | U | U | U | N | P | U | Y | U | N | U |
| **Bernardes et al., 2017** | N | N | Y | U | U | U | U | N | N | U | U | Y | Y | Y | U |
| **Bertilone et al., 2017** | Y | Y | N | Y | U | U | U | U | N | Y | Y | Y | U | P | Y |
| **Blignault et al., 2021** | N | Y | Y | Y | Y | U | U | Y | P | Y | P | Y | Y | Y | Y |
| **Conway et al., 2013** | U | U | N | N | U | U | U | N | N | Y | U | Y | P | Y | U |
| **Kildea et al., 2012** | Y | P | U | P | N | U | U | N | N | P | Y | Y | Y | U | P |
| **Masters-Awatere-et al., 2019** | U | P | Y | U | U | U | U | U | Y | U | U | Y | Y | U | U |
| **Pandey et al., 2023** | N | Y | Y | Y | P | U | U | U | U | y | U | Y | Y | P | P |
| **Peake et al., 2024** | N | P | U | U | U | U | U | N | N | Y | U | P | N | U | U |
| **Varcoe et al., 2022** | N | Y | P | P | U | U | U | U | P | U | P | Y | U | U | U |
| **Yukl, 1986** | U | U | N | N | U | U | U | N | N | N | Y | Y | N | P | N |