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# Evaluating transformative health leadership education for Indigenous health: a mixed methods study

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## ABSTRACT

**Background** There is an urgent need to improve structural competency and anti-racism education across health systems. Many leaders in health systems have the ability and responsibility to play a significant role in policy change and transforming healthcare delivery to address health inequities and injustices. The aim of this project was to evaluate a new health leadership Indigenous health course: PLUS4I.

**Methods** A mixed methods design grounded in a pragmatic paradigm was used. Attendees to the first four cohorts (n=75) were sent an invitation to complete a survey evaluating their learning immediately after the completion of PLUS4I. We retrospectively collected self-efficacy ratings from participants who were also invited to participate in a semi-structured interview about their experience in PLUS4I. Descriptive statistical analysis was conducted for the quantitative assessment of the survey data. A qualitative descriptive approach to thematic analysis was used for the qualitative interview data.

**Results** A total of 45 completed quantitative evaluations (n=45) were completed across all four cohorts. Paired t-tests were used to show pre-changes and post-changes in self-reported confidence on a 6-point Likert scale across four categories of activities. Improvements were seen in the ratings across all categories of activities, and all were statistically significant (p<0.001). Two overarching themes emerged from the qualitative analysis: breaking down previous knowledge and critical applications; building new knowledge and change-making competencies. The qualitative interviews (n=25) averaged 32:23 min, with 18 female (72%) and 7 male (28%) interview participants.

**Conclusion** Future work will support expansion of the PLUS4I course into other work environments and faculties, where the learning environment, structure and relevant Truth and Reconciliation Calls to Action may be different. This work responds to the urgent need to create systems-level change to address structural racism and implement high-quality Indigenous health and anti-racism education.

## BACKGROUND

There is a continued need to improve structural competency<sup>1</sup> and anti-racism education across academic medicine and health systems.<sup>2</sup> Often, inadequate leadership and policy approaches fail to initiate the structural changes needed to address health inequities through inattention to existing barriers in the system.<sup>3</sup> Many leaders in health

## WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Addressing issues of diversity in healthcare settings has an impact on a variety of elements crucial to effective evaluation and treatment. By addressing this emerging educational intervention on Indigenous health, the fundamental idea is that it will enable leaders in health to shift structures and policies to eliminate systemic anti-Indigenous racism.

## WHAT THIS STUDY ADDS

⇒ There is a lack of literature on how to implement interventions that focus on professional health education programmes that evaluate concepts in colonial oppression, discrimination, power and privilege. The study's findings identify ways to assist faculty leaders in applying decolonisation strategies and structural competency skills into practice in both work environments and personal life.

## HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ In situations where those who hold leadership roles may experience internal discomfort due to conflicting knowledge between their beliefs and actions, PLUS4I provides the opportunity to use cognitive dissonance-reduction strategies in supportive and collaborative environments. These shifts change from an individual to a systems level and increases impact.

systems have the ability and responsibility to play a significant role in policy changes and, therefore, in transforming healthcare delivery, thereby moving away from being complicit actors in the system to being aware and vocal about the inequities and injustices rooted within institutional health systems.<sup>4</sup> As concluded by Acosta and Skorton,<sup>5</sup> transformative change can only be achieved by leaders who understand their ability to dismantle structures that perpetuate inequities.<sup>5</sup>

Targeted anti-racism education is required to enable leaders with the skills needed to achieve this transformative change. Such anti-racism education can be both complex and difficult to implement.<sup>6</sup> For Indigenous health education, important teaching includes how to challenge existing knowledge hierarchies and dominant western thinking by taking a more critical perspective where individuals can challenge their own thinking.<sup>5</sup> Furthermore,



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it is important to highlight the history of colonialism and how it continues to shape inequities in life and health outcomes.<sup>7</sup> Indeed, the Truth and Reconciliation Commission of Canada (2015) included seven health-related calls to action (Calls 18–24) in its final report that outlined 94 Calls to Action across all areas of society.<sup>8</sup> Calls 23 and 24 specifically address the need for cultural competency training, including anti-racism and human rights education for all people working in the health system.<sup>8</sup> Similar actions have been outlined by the Association of Faculties of Medicine of Canada's *Joint Commitment to Action on Indigenous Health* (2019).<sup>9</sup>

We developed a new leadership course, The Practical Leadership for University Scholars 4I: Reconciliation Leadership Foundations (PLUS4I), with the aim of developing health systems and medical education leaders' skills to engage in Indigenous health and reconciliation change projects in their local work areas. Course content and structural development took place from February to September 2020 with the input of Indigenous students and Elders, medical school senior leadership, Indigenous community members, Indigenous faculty and medical education experts, including the study team and included authors. The study team is made up of racialised cisgendered women learners (ML and DM), a white cisgendered woman research assistant with qualitative methods expertise (RC), two white cisgendered women educators with experience in faculty development education and evaluation (KKT and ARdO), one white cisgendered disabled man with senior national leadership experience in faculty development (DK) and a cisgendered Indigenous woman with education leadership experience who led the project team (PR). The group of advisors directed the mission and goal for the course and commented on multiple drafts of content and pedagogy to work collaboratively with the study team. The overall goal of PLUS4I is institutional change to eliminate systemic racism faced by Indigenous people.

In developing the course, we adopted Bloom's taxonomy as a framework to guide an Indigenous health leadership educational initiative for faculty leaders.<sup>10</sup> Bloom's Taxonomy outlines the structure of learning including higher order learning and how to critically assess ongoing processes, identify problem areas, comprehend what strategies and/or policies can be implemented, and then design new systems of equity and justice.<sup>10</sup> The first step in learning is for learners to remember, understand and apply the principles they have learnt in a course.<sup>10</sup> The next step is to analyse, evaluate and create work that incorporates the lessons taught in class and is adapted and tailored to the individual's thinking and working contexts.<sup>10</sup> Learners can operationalise their knowledge into practical strategies to address systemic inequalities using the outlined process. We adopted this framework to both guide course development and to help us identify specific elements included in the delivery that contribute to developing change management skills and the type of learning appropriate at each stage. Through this process, we developed a virtual Indigenous health leadership course delivered over four half days, with 1 to 2 weeks between each session to facilitate reflection and integration of learnings into the day-to-day lives of participants (table 1).

In addition, this framework creates a space for faculty development work that intersects Western and Indigenous ways of knowing, termed by Ermine<sup>11</sup> as the ethical space.<sup>11</sup> Ethical space provides a common ground for learning by simultaneously holding contrasting perspectives of the world, which is needed when unlearning and relearning deeply held views.<sup>11</sup> This provides a space for engagement in understanding our thoughts and how they can influence our behaviour.<sup>11</sup> Practising in an

ethical space brings to light the hidden values that govern our behaviour and situations where cultural differences may clash.<sup>11</sup> This space provides a way for us to reconcile cross-cultural perspectives that shift away from dominant social hierarchies towards cooperative partnership models that value both Indigenous and Western thought worlds.<sup>11</sup> By holding an ethical space, opportunities to create new thoughts and meanings that do not follow traditional perspectives can be introduced, leading towards possibilities of replacing old ways of thinking that have been deeply embedded in our society.<sup>11</sup>

The aim of this mixed methods study was to evaluate the learning outcomes and effectiveness of this novel health leadership educational course.

## METHODS

We selected an additional coverage mixed methods study design and used a pragmatic paradigm to explore measures of learning and individual participant experiences of PLUS4I.<sup>12</sup> This approach enabled the measurement of impact on learners and created a deeper understanding of the learning process through the participant's own perspectives. Attendees to the first four cohorts (n=75 total attendees) were sent a cross-sectional retrospective survey of their learning immediately after the completion of PLUS4I and a subsequent email invitation to participate in an interview about their experience in PLUS4I via email and contacted the study team if interested in participating. Participants were recruited from June 2021 to December 2021 and provided written informed consent.

## Data collection

Self-rated evaluations were collected for four cohorts: (1) January 2021 to February 2021; (2) May 2021 to June 2021; (3) October 2021 to November 2021; (4) May 2022 to June 2022. These evaluations asked participants to retrospectively rate the change in perceived knowledge and skills before and after attending PLUS4I; survey categories are available in table 3. Quantitative assessments were collected and securely stored in an institutional Qualtrics<sup>13</sup> account.

Qualitative interviews were conducted via Zoom<sup>14</sup> using a semi-structured interview guide. The interview guide was developed in conjunction with the study team and the team advisory group to explore the same categories as the survey questions but in greater detail. All interviews were digitally audio-recorded and transcribed verbatim for analysis using Rev.com before being anonymised and verified by the project team before data analysis began. The semi-structured interview guide questions have been included in table 3 to illustrate the alignment between the survey and the interview guide. In addition to the interview questions included in table 3, other interview questions explored the effectiveness of the course content and mode of delivery.

## Data analysis

Statistical tests were performed individually to determine the mean and SD of all variables and include presentation ratings, and self-efficacy for pre-course and post-course sessions. Variables were then compared using Student's paired t-test. Immersion in the qualitative data began immediately after the transcription, anonymisation and verification process was complete. A qualitative descriptive approach to thematic analysis was used<sup>15</sup> and transcriptions were inductively analysed through an interactive process after being imported to a qualitative data analysis software, NVivo V.12.<sup>16</sup> Data analysis started by identifying key concepts and started with small, descriptive codes. Codes were

**Table 1** PLUS4I: reconciliation leadership foundations

Day 1	Component name	Description
Pre-reading: Truth and Reconciliation Calls to Action (small books provided)	Large group discussion	Welcome and introductions
	Lecture	Foundational knowledge: Truth and Reconciliation (TRC) Calls to Action, Colonisation as a determinant of health
	<b>BREAK</b>	
	Small group discussion	How do the TRC Calls relate to your area of work and society as a whole? Which Calls are most important/able to be addressed by your work?
	Large group discussion	Identify priorities as a group
	Lecture	Connect to local priorities and work in health and the community. Include where to seek guidance and resource materials
	Large group discussion	Open Q&A
Day 2	Component name	Description
Pre-reading: OCAP principles and ethical space	Large group discussion	Reflections on day 1
	Lecture	Introduction to Indigenous approaches to ethics and ethical space, including OCAP (Ownership, Control, Access and Possession: First Nations Data Governance)
	Small group discussion	How do you need to incorporate ethical space and OCAP into your work?
	Large group feedback	What challenges can you see for Indigenous Peoples in western institutions as a result of the differences in Ways of Knowing and Doing? What can you do about these challenges?
	<b>BREAK</b>	
	Lecture	Short introduction to racism and types/levels of racism
	Small group discussion	Discuss these examples and how they show up in your work
	Large group discussion	Feedback from small groups and open Q&A
Day 3	Component name	Description
Pre-reading: Models of allyship	Large group discussion	Reflections on days 1 and 2
	Lecture	Allyship and relationality
	Large group discussion	What would allyship look like in the academy or in medicine/where you work?
	Small group discussion	What are the obstacles that stop you from engaging in this work and/or interrupting racism/discrimination (interpersonal or systemic)?
	<b>BREAK</b>	
	Large group discussion	Identification of priorities and common challenges
	Lecture	Practical strategies to mitigate identified challenges
	Small group discussions	Which strategies feel achievable for you?
	Large group discussion	Feedback from small groups, open Q&A
Day 4	Component name	Description
Homework: Change project planning for discussion	Large group discussion	Reflections on days 1, 2 and 3
	Lecture	Introduction to, and group exploration of, change management model
	Individual work	Creating draft plans for action using provided materials. (Individual work on one's own project)
	<b>BREAK</b>	
	Lecture	Group feedback process introduction. Each individual describes planned project to other small group members and receives feedback. This is repeated for every group member
	Small group work	Each individual rotates receiving feedback in small groups
	Large group discussion	Large group discussion in which participants share key insights from their consultants
	Troubleshooting	Facilitated large group discussion re: how to analyse challenges/failures
	Key take-aways	Participants will share one key take-away from the course
	PLUS 4I conclusion	Open Q&A

then synthesised to generate overarching themes and subthemes. These generated themes were then compared across all interview participant data in-depth understanding of experience and to enhance credibility and confirmability of the data.<sup>17</sup> To ensure confirmability and dependability of the study, memos were also kept recording any significant analytical modifications and coding was confirmed with multiple team members.<sup>18</sup> Providing a targeted sample and in-depth descriptions of the data and study specifics allowed for transferability to other contexts.<sup>17</sup> Throughout the entire data collection procedure, reflexivity was used to consider power imbalances between the interviewer and interviewees. The team and the student researchers held numerous discussions and peer-debriefing sessions to iteratively discuss the analysis in order to ensure the study's methodological rigour and resolve any differences in analysis.

## FINDINGS

### Qualitative evaluation

The duration of the qualitative interviews (n=25) ranged from 22:07 to 50:18 min (mean: 32:23 min). Among the participants, there were 18 women (72%) and 7 men (28%). Several themes and subthemes emerged from the data analysis. These themes are presented in [table 2](#) and in further detail later.

### Theme 1: breaking down previous knowledge and critical applications

#### Motivation for learning

PLUS4I participants acknowledged a gap in their knowledge that motivated their decision to enrol in a course that could educate

**Table 2** Qualitative themes and subthemes

Theme	Subtheme
Theme 1: Breaking down previous knowledge and critical applications	Motivation for learning Learner-focused pedagogy
Theme 2: Building new knowledge and change-making competencies	Overcoming cognitive dissonance Skills for structural change

them in overcoming obstacles faced personally and professionally. Participants also expressed a desire to deepen their skills in advancing professional and personal decolonisation work.

We're not doing enough as a department to really support the calls to action from the truth and reconciliation commission without some core knowledge or content behind our actions.—Participant P4

One participant noted the benefits and incentives in being part of PLUS4I by effectively creating a community of people who had a common understanding of structural racism and could work together to create change.

[...] one of the biggest benefits was just seeing in a room, a group of people who are committed to moving forward. And so being able to then sort of ally with them, [...] and like knowing where your safe places are to go [...] that was a huge benefit.—Participant P2

### Learner-focused pedagogy

The learner-focused nature of the course allowed for flexibility in meeting learning needs, where peer-facilitated discussions provided more opportunities to explore new ways of affecting change. For many participants, the action-oriented component was crucial. Role-playing exercises, mini-group workshops, and self-directed homework and readings provided a place for participants to express and discuss their thoughts and questions with their peers in greater depth. It also helped them see possibilities for structural change. This made it possible for them to overcome the initial obstacles of lacking the perceived confidence or abilities required to initiate systems transformation. More importantly, the action-oriented focus of the course enabled participants to go beyond a basic understanding of the course materials and apply what they had learnt to real-world situations.

So I think the course [...] not only gave me time and space to think about things, but also [...] some actual actionable steps that I can take. And specifically in the last session around actually making a bit of an action plan, I felt that was very helpful.—Participant A7

The use of virtual breakout spaces within the virtual platform further advanced basic intercultural competency skills. Breakout rooms allowed participants to go beyond learning what decolonisation means to them and others, to developing intentions and actionable approaches to carry out such work. Participants learnt from one another and worked on various decolonisation strategies within the breakout spaces relevant to their own spheres of influence.

So one of the things that we talked a lot about in our breakout rooms was the space to process affect and feeling. Where most workshops, they're very information content driven and there's no space for affect. So I thought it was really powerful [...] being able to sit with the feelings and the impact of this kinda work.—Participant A3

By creating a thoughtful and participant-centred space, the course provided time for participants to internalise their learning

and incorporate it into their ways of thinking. One participant highlighted that it also provided opportunities for important peer-facilitated interactions.

And so, even just knowing that there's a group of people that I can be like, [...] "I tried to get this off the ground and I'm meeting these barriers—like, what did you guys do to deal with these?" So, yeah, I wouldn't want it to be, like, right after. I actually think for me, personally, having some space for me to digest all the information, think about my next steps, try something out, and then build my skills from there, actually, would be [...] what I would need.—Participant C4

### Theme 2: building new knowledge and change-making competencies

#### Overcoming cognitive dissonance

PLUS4I participants described an increase in their knowledge of the history of colonisation, the centrality of social context and the impact of intergenerational experiences, and greater appreciation for the importance of building trusting relationships with patients and within health systems. Participants indicated their initial assumptions were challenged, a crucial step that allowed them to then rebuild their knowledge with the skills and understandings gained from the course. Some participants integrated the course knowledge into tangible, personal-thinking skills.

So, I would say courage, conviction. [...] In terms of skills, yeah, totally, we had time to work out our own responses to various scenarios that we might encounter. And then also hear other people's.—Participant C5

For some participants, personal growth was about knowing what tools and resources they could access to help them through anticipated challenges.

And then starting to figure out who are, you know, the important people in various Indigenous communities that I need to start reaching out to and building relationships with and building relationships in the community with to allow me to be successful in my future role.—Participant A6

Lastly, some participants were able to recognise their own privilege, becoming more aware of their attitudes, the way they perceive different situations and how that might impact the individuals they interact with.

[...] I feel like every time I do a course that's in this vein, I just get another layer of recognizing my own very white settler lens and privilege and checking myself so much more.—Participant C4

#### Skills for structural change

After completing the course, participants acquired numerous skills that they applied in their respective work environments. Participants reported becoming more deliberate in their words and actions while also more intentionally engaging in reflection and honest assessment of their workplaces. Participants highlighted specific thoughts and behaviours that they initiated both within themselves and others. They developed a sense of confidence in tackling systemic changes that may have initially felt overwhelming.

So, I think it did help certainly with the skill building around identifying areas for change and also just, like, the confidence around maybe how to prioritize those areas.—Participant A7

Multiple participants highlighted the course instilled a sense of confidence and ability to identify areas for positive change within



**Table 3** T-test calculations of all self-reported confidence levels across a 6-point Likert scale (n=44)

Activity: Self-reported confidence	Qualitative Interview guide questions aligned with quantitative domains	Mean pre-retrospective*	Mean post-retrospective	t	df	Cohen's d
Demonstrate applied understanding of the TRC	Which days or content areas were most helpful for you to feel more familiar with the TRC and prepared to undertake reconciliation projects?	2.76	4.40	-9.124†	44	-1.36
Identify the Calls to Action to focus on as a leader	Tell me about your motivations or reasons for attending PLUS 4: Reconciliation Leadership Foundations	2.64	4.44	-9.771†	44	-1.46
Demonstrate ways to act authentically and ethically with cultural humility	Describe for me how you feel attending PLUS has enabled you to change practice in your area of work? How do you feel your understanding of ethical and cultural working has changed?	2.91	4.47	-11.068†	44	-1.65
Apply a framework to enable equity and safety in the workplace	How has the course helped you build the skills to identify areas for change? How did the course make you more confident in planning or implementing change for reconciliation work?	2.69	4.31	-10.811†	44	-1.61

\*Mean difference is significant at the 0.05 level (2-tailed).

†Mean difference is significant at the 0.001 level (2-tailed).

their workplaces, and many reported successes in following through with their intended actions.

There was one particularly concrete action item that I'd taken out of the course, for me, personally, which I have followed through since the course. And that was to identify and support Indigenous medical student leaders in our community. So, that was something that I kind of realized was gonna be important. [...]—Participant A2

### Quantitative evaluation

We retrospectively collected pre-/post-self-efficacy ratings from participants, with a total of 44 completed quantitative evaluations (n=44) collected across all four cohorts. Paired t-tests were used to show pre-post changes in self-reported confidence on a 6-point Likert scale across four categories of activities: (1) demonstrate applied understanding of the TRC; (2) identify the Calls to Action to focus on as a leader; (3) demonstrate ways to act authentically and ethically with cultural humility; (4) apply a framework to enable equity and safety in the workplace. As shown in table 3, comparing the self-efficacy ratings of various objectives from before the PLUS4I course and after, improvements were seen in the post ratings across all four categories of activities, and all were statistically significant ( $p < 0.001$ ) with large effect sizes of values greater than 0.8 (Cohen's d).

The two main themes within the qualitative data aligned with the quantitative measures shown in table 2. The first theme of *Breaking down prior knowledge* is related to the first two activities (*Demonstrate applied understanding of the TRC* and *Identify the Calls to Action to focus on as a leader*). The second theme of *Developing new knowledge* incorporated the latter two activities (*Demonstrate ways to act authentically and ethically with cultural humility* and *Apply a framework to enable equity and safety in the workplace*).

### DISCUSSION

Our study has identified important ways in which faculty leaders can be supported in developing and implementing decolonisation strategies and intercultural competency skills within both their workplaces and personal lives. Throughout the course, many participants had the opportunity to work on their understanding of what decolonisation and reconciliation meant to them and how they planned to enact changes to reach those goals. PLUS4I supported faculty leaders in developing a common ground in knowledge of Indigenous health and the confidence

to start implementing changes within their own work environments. Many participants were able to transform the knowledge and skills that they learnt into attainable and actionable future directions working towards large-scale, institutional changes, therefore reaching the higher order learning indicated in Bloom's taxonomy.<sup>10</sup>

Cognitive dissonance theory has relevance to our findings.<sup>19</sup> PLUS4I provided an opportunity to foster dissonance-reduction strategies in participants, sensitising them to situations where they may feel internal discomfort from the awareness of conflict between their beliefs and behaviours.<sup>19</sup> Developing awareness of this internal dissonance within the supportive environment of the course may have reduced participants' resistance to the material, allowing room for deeper processing of new information.<sup>19</sup> The elements of PLUS4I that facilitated learning through cognitive dissonance including the action-oriented and learner-focused nature of the course itself, where initial assumptions are challenged and participants are guided through ways to integrate intercultural knowledge within their day-to-day life. Furthermore, by developing a common foundation of knowledge and then discussing practical decolonisation strategies around specific situations within their individual contexts, PLUS4I participants became aware of their reactions when hearing or reading information that was inconsistent with their own beliefs or values.<sup>19</sup> Such awareness has been shown to prevent learners from selectively processing information, leading to fewer statements of denial<sup>19</sup> and moving towards higher order learning on Bloom's taxonomy.<sup>10</sup> Ethical considerations around learner safety with respect to cognitive dissonance are also important. The first and second sessions of the PLUS4I course emphasise Indigenous ethics and the concepts of anti-racism learning. Throughout every session, participants were reminded that they could take breaks, the facilitator was aware of group dynamics to create breaks if needed and one-on-one debriefs were offered afterwards. Expansion of this type of programming to mandatory learning spaces may inadvertently create environments for more resistance to the learning and expose facilitators and participants to anti-Indigenous bias, so additional consideration needs to be given to training facilitators to counter this bias.

Our use of expert facilitators within the PLUS4I course further contributed to its success. For example, the main facilitator, also the project lead and senior author, is a Métis member of faculty. In addition, the facilitators encouraged participants to articulate individual learning goals and then explicitly indicated

how each activity aligned with achieving those goals.<sup>6</sup> Small discussion groups with well-trained facilitators who can scaffold learning throughout the course<sup>20</sup> has also been shown to further conversations around more emotionally difficult topics.<sup>6</sup> In this instance, it is helpful if facilitators have a background understanding of Indigenous determinants of health but need not be clinically trained. It has, however, proven important for the facilitator to be Indigenous, although additional support from non-Indigenous allied facilitators to team-teach would likely be beneficial. Encouraging learners to reflect on their own individual reactions to course material allows better integration of that content into everyday situations.

Incorporating both the principles of cognitive dissonance and the use of scaffolding in the educational process within PLUS4I allowed for higher order learning to take place among the faculty leaders who took part in the course. Participants were able to come out of the course equipped with a greater understanding of structural racism, ways to identify implicit racist behaviour and solutions to combat those situations. Although participants were largely very positive about their experience in PLUS4I, there were moments where the reality of the scale of anti-Indigenous racism, and racism more broadly, in medicine created challenging conversations and participants asked if the group could stop the discussion. The facilitator at this time stopped the discussion, made time for a break and then discussed the challenges from a metacognitive standpoint when the group came back together. We discussed what we were finding challenging about it, and strategies for change, either individually or systemically and also the importance of personal wellness when engaging in this type of work.

Many participants emphasised the significance of continuing ongoing learning and connection through follow-up meetings to encourage and support one another to affect change and discuss evolving challenges. The need for ongoing collaboration in working towards long-lasting transformative change was clear to facilitators and learners. This was subsequently put into practice through quarterly Community of Action virtual meetings, where participants could reunite and discuss the initiatives and projects they had been working on since the course. One participant highlighted how impactful ongoing meetings can be after finishing a course like PLUS4I, when you can have the time to reflect on your own learning and be reassured in knowing that there is a group of like-minded colleagues advancing similar work.

Several limitations of this study are inherent to the research design. A purposefully selected sample meant that each participant had the acquired knowledge and experience of the course which were essential to meeting the research objectives. However, due to the recruitment method, those who found the course more useful were more likely to participate in the interviews than the individuals who found it less useful. The questions asked during the interviews were also related to the topic of anti-racism along with course feedback; this would likely amount to some social desirability bias in participant answers. While these limitations are inherent to the study design, we have aimed to reduce such limitations from affecting the results by ensuring anonymity and privacy of our participants and ensuring that the research student was not interviewing faculty in their own department. We also acknowledge several limitations in the implementation of such programmes in different contexts. In this single-site setting, we had a committed Indigenous faculty member and support staff from the faculty development team to develop and deliver this programme. Even with these supports, the single Indigenous faculty member is limited to delivering the course one to two times per year. We would recommend that a

dedicated Indigenous educator with experience in faculty development be fully supported to further implement work such in all medical schools, with additional commitment to train new facilitators.

## CONCLUSIONS

In building fundamental knowledge and scaffolding, PLUS4I supported the development of intercultural competency among faculty leaders, including the knowledge, confidence and skills to engage in anti-racism work. Future work is planned to expand the PLUS4I course into other work environments and faculties, where the learning environment, structure and relevant TRC Calls to Action<sup>8</sup> may be different. We hope that this work will create more opportunities for systems-level change to address structural racism through high-quality Indigenous health and anti-racism education.

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**Contributors** PR, DK, ARdO, KK-T conceptualised the project, designed and delivered the curriculum, and determined research methods and outcome measures. ML, DM and RC completed data collection and analysis with oversight and verification by PR. PR, ML and DM led the writing of the manuscript. All authors reviewed analysis and manuscript drafts. PR acts as the guarantor for this work.

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