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REPORT



Perceived preparedness and training needs of new graduate physiotherapists' working with First Nations Australians

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ABSTRACT

Introduction: There is a considerable and ongoing health gap experienced by First Nations Australians. Physiotherapists play an integral role in the health care of this population; however, little is known about new graduate preparedness and training needs to work in a First Nations context.

Objective: To explore the perceptions of new graduate physiotherapists regarding their preparedness and training needs for working with First Nation Australians.

Methods: Qualitative telephone, semi-structured interviews of new graduate physiotherapists (n = 13) who have worked with First Nations Australians in the last two years. Inductive, reflexive thematic analysis was used.

Results: Five themes were generated: 1) limitations of pre-professional training; 2) benefits of work integrated learning; 3) 'on the job' development; 4) intrapersonal factors and efforts; and 5) insights into improving training.

Conclusion: New graduate physiotherapists perceive that their preparedness to work in a First Nations health context is supported by practical and varied learning experiences. At the pre-professional level, new graduates benefit from work integrated learning and opportunities that evoke critical self-reflection. At the professional level, new graduates express a need for 'on the job' development, peer supervision, and tailored professional development, that focuses on the unique perspectives of the specific community in which they work.

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First Nations Australians; physiotherapy; training; qualitative; indigenous; curriculum; First Nations Peoples

Background

The colonization of Australia, and other countries such as Canada, New Zealand, and United States of America, has had a significant and detrimental impact on the society, economy, and health of First Nations peoples (Umaefulam, Kleissen, and Barnabe, 2022; United Nations Department of Economic and Social Affairs Indigenous Peoples, 2023). Aboriginal and Torres Strait Islander peoples, herein referred to as First Nations Australians, have one of the oldest known cultures in the world and have survived through numerous adverse historic events and hardships, yet through this have been able to maintain a rich connection to their culture (Malaspina et al., 2016; National Indigenous Australians Agency, 2022). Despite First Nations Australians' ability to overcome the ongoing impacts of history, a significant 'health gap' remains. This has resulted in a disproportionate number of health inequities when compared to the rest of the Australian population (Australian Institute of Health and Welfare, 2022; Kairuz et al., 2021). This health gap includes many preventable chronic conditions, such as diabetes, cardiovascular disease, and respiratory disease, reflected

similarly in other First Nations populations worldwide (Australian Institute of Health and Welfare, 2015b; United Nations Department of Economic and Social Affairs Indigenous Peoples, 2023). Physiotherapists are well positioned with professional expertise and skills to promote health and implement strategies to manage and minimize impairments associated with these conditions (Bolton and Andrews, 2018; Physiotherapy Board of Australia, 2015). Despite the important role of physiotherapists in managing a myriad of health conditions that are ubiquitous within First Nations Australians (Alford, Remedios, Ewen, and Webb, 2014), First Nations Australians only represent approximately 1.8% of the health workforce in Australia (Australian Bureau of Statistics, 2016). This underrepresentation is problematic given First Nations Australians have expressed a desire to have practitioners from their own culture involved in their care as it can assist them to develop rapport, increase their sense of safety, and allow them to feel more comfortable (Rayner et al., 2007; Taylor et al., 2020, 2009). Improving First Nations representation in the health workforce will contribute to improving culturally

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appropriate health care. However, ensuring that all practitioners provide culturally safe health care is the responsibility of the broader healthcare system. Cultural safety, a concept that is still contested for a unified definition internationally, generally encompasses a level of critical consciousness where healthcare professionals engage in ongoing self-reflection, hold themselves accountable, and reduce bias, to deliver culturally safe care to achieve health equity (Curtis et al., 2019). Cultural safety requires high quality training and professional development for all health care professionals (Australian Health Ministers' Advisory Council 2016 Cultural Respect Framework, 2016-2026). Workforce development is required to ensure that health practitioners receive dedicated and integrated training and development to build capacity and equip themselves with the unique perspectives and skillsets required to work safely and effectively with First Nations Australians, to support closing the health gap (Kerrigan et al., 2020; Paul, 2013; Wardliparingga Aboriginal Research Unit of the South Australian Health and Medical Research Institute, 2017).

It has been well documented that new graduate physiotherapists face a range of challenges when transitioning into the workforce expressing feelings of anxiety and stress (Lao, Wilesmith, and Forbes, 2022; Stoikov et al., 2022). This transition has been further described by new graduate health practitioners as 'turbulent' and the experiences of practice can be a 'reality shock' (Duchscher and Cowin, 2004; Duchscher and Windey, 2018; Kilminster, Zukas, Quinton, and Roberts, 2011; Murray, Sundin, and Cope, 2019). Darlow et al. (2015) recommended training at the pre-professional level to foster knowledge and confidence in transitioning to the clinical setting, however there is limited literature regarding the specific training needs of new graduates transitioning to work in a First Nations health context. There has been some research that has explored the experiences of new graduate physiotherapists and their reflections on perceived training needs in other specific contexts, which has provided insight into pre-professional training needs (Forbes and Ingram, 2021; Martin, Mandrusiak, Russell, and Forbes, 2022; Phan et al., 2022). Martin, Mandrusiak, Russell, and Forbes (2022) used a qualitative design to explore the perceived readiness and training needs of Australian physiotherapy new graduates to practice in telehealth service delivery. The findings reinforced that new graduate physiotherapists find the transition from student to health professional not only challenging, but they highlight the need for specific practical learning opportunities during pre-professional training. Te et al. (2019) also explored new graduate physiotherapists' perceived preparation and experiences when working with people

of culturally, linguistically, and diverse backgrounds in Australia and Aotearoa New Zealand. This study explored the influence of personality traits, specifically a lack of open-mindedness (dogmatism) and social desirability, and how this potentially impeded the development of cultural responsiveness of participants. Additionally, the findings suggested that students in their final year of study had lower levels of self-perceived cultural responsiveness. The authors speculated the reason for lower levels of confidence may be due to students having more exposure to diversity, coupled with increased self-reflective skills, therefore they may have been more acutely aware of any gaps in their knowledge and able to better reflect on the differences between their own culture and beliefs and the culture and beliefs of those with whom they were working. New graduate physiotherapists likely face similar challenges when working with First Nations Australians, due to the variability in curricula and the significant differences between First Nations culture and Australia's predominantly Western culture (Te, Blackstock, and Chipchase, 2019). In the First Nations domain, literature exists regarding the preparedness of students from other health professions who have reported limited preparation to work with First Nations Australians (Bullen and Roberts, 2019). Of note, medical students have reported feeling that their preparation for working with First Nations Australians was primarily supported by previous learning, interactions with First Nations Australians outside of formal education, and direct clinical experiences (Harvey, Nightingale, and Kippen, 2021).

The need for training within physiotherapy programs to prepare students and graduates for working with First Nations Australians has been actively endorsed by the Australian Physiotherapy Council across current accreditation standards (Australian Physiotherapy Council, 2021). This is also reflected in the Australian Physiotherapy Association's commitment toward reconciliation by continuing efforts to "create a more culturally safe physiotherapy profession and enhancing the representation of Aboriginal and Torres Strait Islander people within the profession" (Australian Physiotherapy Association, 2022).

When considering new graduate preparedness for practice in Australia, the complexities of working with First Nations Australians must be considered. Although investigation into the preparation of new graduate physiotherapists to work in other practice areas has been undertaken, there is no research to date that has explored the perceived preparedness of new graduate physiotherapists to work with First Nations Australians. Research is required to understand the preparation and

perceived training needs of new graduates, to establish how to best prepare culturally safe physiotherapists. Understanding new graduate physiotherapists' perceived preparation and training needs in this space will provide insight for educators, employers, and the wider physiotherapy profession to inform improvements in pre-professional training and new graduate support, and ultimately facilitate transitions to clinical practice.

Methods

A qualitative study design with semi-structured interviews was used to enable collection of in depth, open-ended data that explored participant thoughts and feelings regarding the topic of interest (DeJonckheere and Vaughn, 2019). An inductive reflexive thematic analysis approach was taken (Braun and Clarke, 2019). This study was approved by the University of Queensland – Institutional Human Research Ethics, approval number 2021/HE001594.

Participants

New graduate physiotherapists were recruited predominantly via convenience sampling with snowballing sampling thereafter. Professional contacts of the lead researcher, who included academics, clinical educators, employers of physiotherapists, members of professional bodies, and registered physiotherapists, were contacted via e-mail (n = 21) and were invited to participate or to approach colleagues who met the inclusion criteria. Elements of purposeful sampling was also utilized to ensure that the study included a range of participants from geographical locations across Australia (Patton, 2002). Inclusion criteria required new graduates to be currently, or previously, employed in a capacity where they held at least a minimum caseload of 10% of patients who identify as First Nations Australians, and have graduated from an entry level physiotherapy program within the previous two years from December 2019 to January 2022 (Chipchase, Williams, and Robertson, 2008). During the sampling process, if participants expressed interest in the study following the initial

e-mail invitation, participant information regarding involvement in the study and a consent form was provided via e-mail. A demographic data form was also provided to participants that requested they estimate their length of time working with First Nations Australians and percentage make up of First Nations Australians in their caseload using specified range options. Telephone interviews were then scheduled based on participants' preferred time as supplied in return e-mail. The Modified Monash Model was utilized to assist with identifying regions of Australia where the participants practiced as a physiotherapist (Australian Government – Department of Health, 2019). The research team was comprised of academics and clinical physiotherapists (CN, RF, AM). The lead researcher (CN) is an associate lecturer in physiotherapy, clinical physiotherapist, and from a First Nations Australian background. RF is a physiotherapy academic, qualitative researcher, and physio-therapist, identifying as a Caucasian New Zealander. AM is a physiotherapy academic and qualitative researcher, identifying as a Caucasian Australian.

Data Collection

A semi-structured interview guide was developed by the lead researcher (Table 1) following a review of the literature and consultation with the research team, who have expert knowledge in new graduate practice, health professions education, and qualitative research. Two pilot interviews were completed with one new graduate physiotherapist and one employer of physiotherapists who did not participate in the study. Minor adjustments to wording and structure were made to the final interview framework, in response to pilot feedback.

Following informed written and verbal consent from the participants, the lead researcher conducted individual interviews via telephone, which ranged from 33 to 52 minutes (mean = 40 minutes). The interview guide was referenced throughout the interviews by the lead researcher to ensure consistency of questions and appropriate depth of responses, with probing questions

Table 1. Example semi-structured interview questions.

Example Interview Questions
What have been your experiences, positive or negative, when working with First Nations Australians?
Where do you feel your preparation to work with First Nations Australians came from?
Have you had any additional training in the workplace that has focused on working with First Nations Australians?
Example Probing Questions
Can you provide examples of the key aspects that influenced your experiences with First Nations Australians?
Could you explain what the key elements were that you felt influenced the impact of this preparation?
You mentioned that completing additional training was beneficial. What aspects of this training were beneficial?
How did you apply this to working with First Nations Australians?

to allow clarification of meaning when required (Patton, 2002). Telephone interviews were recorded using an audio recording device and handwritten notes were taken by the lead researcher. All interviews were conducted between August 2021 and January 2022, and transcription and analysis of data was undertaken by the lead researcher on a continual basis. After 13 interviews, the research team concluded during meetings that an appropriate sample size was achieved to maintain sufficient information power due to the specific target population; length, depth, and quality of the interview dialog and subsequent analysis that allowed the research team to answer the research question (Braun and Clarke, 2021b; Malterud, Siersma, and Guassora, 2016; Morse, 2015; Varpio et al., 2016).

Data Analysis

Audio data were transcribed verbatim and checked against recordings by the interviewer. Participant members were also requested to check the accuracy of their transcript via e-mail correspondence. The interview transcriptions were analyzed independently by the lead researcher with a general inductive approach to allow for increased depth on interpretation and extrapolation of themes (Patton, 2002). Reflexive thematic analysis (Braun and Clarke, 2006, 2019, 2021a) was conducted as an ongoing process until the research team determined sufficient information power had been achieved (Braun and Clarke, 2021b; Malterud, Siersma, and Guassora, 2016; Morse, 2015; Varpio et al., 2016). This process was strengthened through completion of all analyses independently by a second researcher (RF) which established commonality between the two researchers (CN and RF) across four meetings. To explore the participants' perceptions, all transcripts were reviewed multiple times for data familiarization prior to analysis. Initial concepts and ideas were categorized into codes which were reviewed and grouped to create overarching themes. During the process, each step was reviewed until no new codes and then themes appeared, to ensure thematic sufficiency following the key process of analysis which included phases of facilitation, coding, searching, reviewing, defining, and then naming (Braun and Clarke, 2019).

This study used two theoretical and epistemological frameworks: 1) First Nations' methodology (Walter and Suina, 2019); and 2) working at the research interface (Ryder et al., 2020). A First Nations methodology is the process of undertaking research and practices from a First Nations

worldview which encompasses the perspectives, beliefs, and values through the lived experiences as the central axis (Walter and Suina, 2019). The second framework, working at the research interface is a concept that reflects that the researcher is both an academic and a First Nations Australian and that these in some cases may compliment the research, but at other times might conflict with the research. This guides reflexivity practice by recognizing where this affects the researcher's interpretation of data and knowledge creation. This type of approach that utilizes a mixture of Indigenous methodologies with Western or non-Indigenous methodologies in research has been referred to as 'working at the interface' (Ryder et al., 2020). Working at the interface allows two knowledge systems to form a theoretical concept to allow the researcher to navigate and engage with both Indigenous knowledges and Western views, which is what is being conducted in this study (Ryder et al., 2020). To promote reflexivity, the lead researcher, who is of First Nations background, regularly discussed their reflections with the research team which identified possible preconceptions of the topic and how the interpretation of data changed over time. For example, the lead researcher recognized that they held the preconceived belief that participants would likely feel ill-prepared for working with First Nations people, based on their own experience as a physiotherapist working in First Nations health and observing new graduate colleagues who appeared ill-prepared in this area. This allowed the lead researcher to reflect on whether any new data reinforced, challenged, or expanded their preconceptions. Further reflexivity practices were utilized throughout the data analysis process to enhance rigor and minimize bias, including independent reviews of the data by the research team and consistent use of the semi-structured interview guide.

Results

Following the recruitment phase, 13 eligible participants responded by e-mail and provided consent to partake in the study. All participants had completed an undergraduate Bachelor of Physiotherapy degree. Participants reported having completed their studies across five different locations throughout Australia and had worked across numerous settings in their first two years of practice. Of the 13 participants, two identified as First Nations and 11 did not; the length of time working with

Table 2. Participant Demographic Information.

Participant	Identify as a First Nations Physiotherapist	Physiotherapy Experience (months)	Physiotherapy experience with First Nations Australians (months)	Estimated caseload % of First Nation Australian Patients	Principle scope of practice	Workplace setting	Place of residence (state)	Location working or worked (Modified Monash Model)
P1	No	9–13	0–3	>90%	Musculoskeletal & Neurological	First Nations health	QLD	MM1
P2	No	9–13	9–13	10%	Cardiorespiratory, Musculoskeletal, & Neurological	Hospital, Outpatients, & CHC	QLD	MM2 & MM3
P3	Yes	14–19	4–8	>90%	Disability/NDIS	Private practice & First Nations health	QLD	MM1, MM2, & MM5
P4	No	20–24	14–19	>90%	Age care, Disability/NDIS, & Paediatrics	Outpatients, CHC, & First Nations health	NT	MM2, MM5, MM6, & MM7
P5	No	9–13	9–13	30–50%	Cardiorespiratory	Hospital	NT	MM2
P6	No	0–3	0–3	10%	Cardiorespiratory	Hospital	VIC	MM1
P7	Yes	9–13	4–8	10%	Cardiorespiratory & Musculoskeletal	Hospital & CHC	NSW	MM1
P8	No	4–8	4–8	70–90%	Disability/NDIS	CHC	WA	MM2 & MM7
P9	No	20–24	20–24	>90%	Disability/NDIS	CHC	WA	MM7
P10	No	14–19	9–13	70–90%	Cardiorespiratory, Musculoskeletal, & Neurological	Hospital	NT	MM2 & MM4
P11	No	9–13	4–8	70–90%	Disability/NDIS	CHC	WA	MM6 & MM7
P12	No	9–13	9–13	70–90%	Age Care & Musculoskeletal	Hospital Outpatients, CHC, First Nations health	WA	MM7
P13	No	9–13	0–3	50–70%	Cardiorespiratory	Hospital	NT	MM1, MM2, & MM6

MM1 (Metropolitan areas), MM2 (Regional centers), MM3 (Large rural towns), MM4 (Medium rural towns), MM5 (Small rural towns), MM6 (Remote communities), MM7 (Very remote communities), NSW (New South Wales), NT (Northern Territory), QLD (Queensland), VIC (Victoria), WA (Western Australia), CHC (community health care), Hospital (excludes outpatients).

First Nations Australians ranged from 0–24 months, and the percentage of caseload of First Nations Australians ranged from 10–90% (Table 2).

Five themes were generated following analysis: 1) limitations of pre-professional training; 2) benefits of work integrated learning; 3) ‘on the job’ development; 4) intrapersonal factors and efforts; and 5) insights into improving training.

Limitations of Pre-Professional Training

Some participants struggled to draw upon learnings from their university-based pre-professional training when reflecting on their preparation to work with First Nations Australians. Most participants highlighted that training was often provided as a very small component of their studies, delivered in a lecture format, and lacked practical experiences which they felt made it difficult to transfer knowledge to real life practice.

I think there was a very brief lecture or two, about what to expect. I don't think it encapsulated the whole situation. It almost felt, this is the stuff that you might see, so here you go, go learn about them yourself. (P1)

Participants expressed that the education they did receive during their pre-professional training, was largely deficits-based, focusing on the health challenges experienced by First Nations Australians, rather than taking a recommended strengths-based approach. Participants reflected that this often misrepresented what working with First Nations Australians was like in practice and described being now able to compare their initial expectations based on their training with their experiences in practice. Some participants felt they were provided with incorrect or biased information regarding culturally safe practices, a lack of understanding of the diversity of First Nations culture, and often stereotypical information. Participants reflected that this may lead to harmful or negative assumptions of what working with First Nations Australians may encompass.

It feels like it was more taught like a sob story not reality of what Indigenous people are facing in the health sector. (P11)

It is easy to be told Aboriginal people don't like eye contact or Aboriginal people don't like this, and this, so many times at university. I remember this just being listed, you need to be careful of this because this, this, this, and this. You get told that all the time, but then it never goes any deeper. (P10)

It is difficult to work with the First Nations Australians and maybe you should not do it as a new grad . . . I think that's something that was very much instilled into me.

And maybe that was my reason for not wanting to work there in the first place. I think maybe getting that exposure throughout my degree could have helped me address that misunderstanding. (P1)

Benefits of Work Integrated Learning

Participants who completed a work integrated learning placement as a student with First Nations Australians, were able to observe or practice physiotherapy skills, and thus felt this provided invaluable experiences, and perspectives on local culture.

That five-week block placement, we got to do a lot of moving around and talking to different people. It helps you understand that there was a significant difference between Western Australian culture and First Nations culture and just because my way of doing things is different, doesn't mean that my way is better or worse. They are just different ways of doing things and be able to identify that I think was pretty important. (P4)

Participants identified that completing a placement or a similar work integrated learning experience with First Nations Australians provided them with a safe and supportive opportunity to learn and develop their clinical and cultural skills. Specific opportunities included observing a trained physiotherapist engage in care with First Nations Australians in a culturally safe manner, which they were then able to model in their own practice. Such experiences were seen to promote a supportive environment to try new things and that it was ‘ok to make mistakes’ (P8).

The placement that I had up here was easily where I learnt the most. When you are a student, you're almost there to sort of make mistakes and give things a go. I think that really helped. Then to learn from the senior I was with, the other allied health team, and allied health assistants that I was with, to see how to learn from all those people. (P8)

My placement was helpful, it's a supported way into the workforce. You're expected to make mistakes as a student and you're always debriefing a lot more than you would, if you were an actual employee. (P12)

I was lucky at university where I chose to do a placement up in Broome . . . we had a full day of PD (professional development) and a lot of that was around cultural training, so it was my first time, dipping my toes in the water. (P4)

‘On the Job’ Development

Participants reflected that they felt their most practical and meaningful preparation for working with First Nations Australians occurred once they commenced

working as a physiotherapist. Participants were able to reflect that engaging with, and treating, First Nations Australians as a physiotherapist allowed them to gain a deeper understanding of the lived experience of First Nations Australians. Some participants reported that they were able to conceptualize the diversity of different cultural practices and health priorities within the regions they were working and reflected on how these practices, priorities, and cultures differed from their own or that of the predominant Western culture in Australia. Participants further identified that specific workplace professional development was valuable and aided their preparation. Participants placed high value on specific professional development which was focused on local First Nations health, and which promoted a deeper understanding of First Nations culture, and suggested this facilitated their engagement with First Nations Australians.

Deeper understanding about the specific people that live in my areas. I will be honest I did not realize it was as great a difference between different regions and people as they were. I feel like it has given me more confidence . . . I think that is really helped to not be scared to ask those questions or not make assumptions . . . (P8)

Their health priority differences and the transient nature of First Nations Australians living arrangements in this area is helpful to know. Understanding family connections as well (e.g. an older person might be looked after by different people). Things like understanding family structures and understanding the struggles and challenges that people face in this area. (P12)

I've recently just completed a trauma informed care course ran by a First Nations Australian from the Northern Territory, that really went into considering two worlds and how they can be intertwined to achieve patient centered care. (P5)

Participants reflected that receiving advice or 'on the job' education from colleagues aided them to better understand the specific First Nation Australians historical and health context, in which they worked. Subsequently, they were able to apply this advice received in their clinical setting. Participants also identified that the values of the workplace organization such as respecting and valuing First Nations culture, and seeing these values embedded into clinical practice helped participants to align their actions with these values.

We have a lot of training about cultural safety, to ensure that we provide the best care for the First Nations Australians. There has definitely been a lot of training for us, you have a three-day orientation program, which

sets the basis of how the history behind the inequalities that are currently happening. (P1)

It was just really nice to hear from someone who has all this experience and their cultural experience, because it is their culture, he said things aren't always going to go your way and it's not always going to be perfect and to keep persisting and keep being creative keep trying and just to ask . . . I think that was really nice and to acknowledge that he kind of walks in two worlds and can kind of give perspective on both . . . I really enjoyed that part of it and to be able to kind of learn from him. (P8)

Conversely, some participants highlighted that workplaces that did not invest in culturally safe practices or those that promoted high turnover of clients may have impacted negatively on their preparedness to work with First Nations Australians.

I don't feel like there was much in terms of my private practice experiences either. I just feel I wouldn't have been as prepared back then. I feel I would have gone in with that mindset of a private practice setting, where I was just going to treat that person for their condition, and not really address other aspects of their life. (P1)

Intrapersonal Factors and Efforts

Initiatives for further learning or development personally sought out and undertaken were highlighted as important tools. For example, some participants independently sought additional training or experiences, as they did not feel adequately prepared through their pre-professional training. Participants discussed that they experienced improved connection and a sense of engagement with First Nations Australians. Types of personal preparation included critical self-reflective activities around their own culture and experiences or reflections on practice after engaging with First Nations clients, and training delivered by First Nations organizations.

I did do a few things where it really broadened my understanding of the culture and how we fit into that space and what a privilege it is that we have, to be sitting in this space. It assisted a lot in being more culturally aware and more culturally sensitive. Then understanding how you can use your background to really connect with the communities that you are seeing. Even if they're not your community from where you're from, just having that cultural connection is very important. (P7)

Participants highlighted that their upbringing and their families played a large role in their preparation; being immersed in First Nations culture allowed them to gain an appreciation and understanding of diversity within First Nations Australians and their communities. This

was expressed by participants regardless of their cultural background.

I was taught as a child by my father about how to approach someone, how to respect someone that's older than you, how to listen and then create connection. Take time out for each person because, ultimately, the time you spend with them talking and creating connection is more important than seeing a hundred people. (P7)

Communicating and knowing a little bit about cultural differences and through friends enlightening me of struggles, particularly within the health sector. (P11)

Insights into Improving Training

When reflecting on their own training, since gaining experience working with First Nations Australians, participants were able to consider what they perceived to be more effective training approaches. Participants proposed increased exposure through practical experiences and integration of First Nations Australians content that was scaffolded throughout their pre-professional training rather than standalone units. Some participants expressed the desire for more experiential learning to allow theory to be applied in practice. Other participants acknowledged the challenges pre-professional providers face teaching a diverse subject that does not have a “one size fits all” approach.

It would be good to integrate it throughout all the four years of my degree. This would have helped me understand First Nations health a lot more. (P1)

I think some cultural awareness training is needed, whether that needs to be more specific to physiotherapy because it is quite a hands-on discipline. (P10)

I learnt a lot from practical classes. It would be good to practice “clinical yarning” [clinical discussions] or even doing practical learning out on country or in a community, to support engagement with Aboriginal and Torres Strait Islander people all around your local area through the university. (P2)

Many participants emphasized the importance of cultural safety training prior to graduating from their respective degrees. Participants expressed that different types of reflective practices and reflexivity training in First Nations health would be beneficial in understanding cultural safety. Participants did highlight that support around how to navigate their own learning about specific First Nations cultures once they were practicing as a physiotherapist would be beneficial due to the diversity in specific communities within Australia.

... more connection with Community as well, integration of the local community with the degree ...

integration of the local community to your placements to your rotation, there's a Aboriginal Medical Service everywhere, so why aren't we facilitating getting into them and creating your connection and getting that engagement ... (P7)

Explaining how to approach patients ... Getting a proper grasp on how important their cultural background is to them. Things like bush medicine, traditional healers, and in terms of the specifics of what is appropriate when approaching a patient and what they might find rude or polite. (P13)

Discussion

This study has provided insight into the perceived training needs and preparation of new graduate physiotherapists who have experience working with First Nations Australians. By reflecting on their experiences on entry into the workforce, new graduate physiotherapists have identified a range of factors that have influenced their preparedness for working with First Nations Australians and how their pre-professional training impacted their preparation for this setting.

The global health inequities between First Nations and non-First Nations populations are pervasive and ongoing (United Nations Department of Economic and Social Affairs Indigenous Peoples, 2023). To effectively work toward closing the health gap, internationally there is a movement for health education providers to engage decolonization processes and address inherent racism and privilege at the institutional and curricular level (Jones et al., 2019).

Health Workforce Australia (2011) released *Growing Our Future: Final Report of the Aboriginal and Torres Strait Islander Health Worker Project*. The purpose of the project was to inform national policies and strategies around culturally safe health care for First Nations Australians. Recommendation 23 within the report articulated the requirement to “embed mandatory cultural competency curricula, including an understanding of the role of the Aboriginal and Torres Strait Islander Health Worker, in vocational and tertiary education for health professionals” (Health Workforce Australia, 2011). In direct response to this recommendation the Aboriginal and Torres Strait Islander Health Curriculum Framework was developed to support pre-professional health programs to implement First Nations health curricula alongside the National Scheme’s Aboriginal and Torres Strait Islander Health and Cultural Safety Strategy 2020–2025 (Australian Health Practitioner Regulation Agency, 2020; Commonwealth of Australia Department of Health, 2021). The Australian Health Practitioner Regulation

Agency (2020) identified that to ensure culturally safe and respectful practice, health practitioners must “*acknowledge colonization and systemic racism, social, cultural, behavioural and economic factors which impact individual and community health.*” The development of national policies and frameworks to support First Nations content into health curricula has led to the growing need for pre-professional physiotherapy training in Australia to provide curricula that focuses on First Nations’ health to ensure that new graduates have the foundational skills to enter the workforce (Australian Physiotherapy Council, 2021; Commonwealth of Australia Department of Health, 2021). The Australian Physiotherapy Council is the regulatory body appointed by the Physiotherapy Board of Australia to ensure physiotherapy programs within Australia maintain standards for entry level physiotherapy programs. The latest edition of the Australian Physiotherapy Council guidelines includes substantial evidence requirements that are to be supplied by the individual programs to the accreditors specifically outlining how First Nations Australians content, consultation, and collaboration is encompassed and embedded within the physiotherapy program (Australian Physiotherapy Council, 2021).

To date, little is known about how physiotherapy training programs have prepared new graduates to work with First Nations Australians. The results of this study emphasized that there may be gaps in the depth of training provided at the pre-professional level, from the perspective of new graduates working in this setting. New graduates in this study emphasized that there was variability in the quality and amount of work integrated learning opportunities provided to them to work with First Nations Australians, which subsequently influenced their preparedness. Additionally, new graduates highlighted limitations in the delivery of content related to First Nations health, identifying that it lacked a strengths-focused lens toward First Nations Australians, which may have negatively impacted their intentions to work in this area.

Kerrigan et al. (2020) emphasized that health professionals require training that is contextualized and applied to the specific clinical environment in which they will work. Furthermore, a study conducted by Harvey, Nightingale, and Kippen (2021) focused on preparedness of medical students to work with First Nations Australians. The authors found that students described formal or traditional learning modalities as less beneficial for their preparation and placed more value on clinical practical experiences where they had direct exposure to working with First Nations Australians. Similarly, our study found that new

graduate physiotherapists reflected that they did not feel adequately prepared to work with First Nations Australians following the formal or traditional training they received at the pre-professional level. It was acknowledged by new graduates in this study, that merely increasing First Nations health content at the pre-professional level would not necessarily improve their preparation, but the context in which training is provided was more important for building these skills. Since gaining experience working with First Nations Australians, new graduates were able to reflect strongly on the value of training that is practical in nature and specifically related to their professional role, compared to traditional learning formats such as lectures. The findings from this study are in support of the work of Boet et al. (2014) who systematically reviewed the literature on knowledge translation of practical training on patient outcomes. Boet et al. (2014) suggested that practical training compared to other forms of training, aided the translation of knowledge from the classroom into the clinical setting. These findings reinforce the reflections of new graduates in this study, in that higher value was placed on practical training they received at the pre-professional level to better aid their preparedness to work with First Nations Australians. It must be recognized that increased strain may be placed on First Nations health services and communities by increasing practical placement experiences. Therefore, it is essential to interpret these findings through a lens of cultural safety by which learning experiences that promote critical self-reflection and understanding of personal biases, such as simulated experiences and telehealth consultations with First Nations Australians, which may also assist to increase new graduate preparedness to work within a First Nations Australian health context (Curtis et al., 2019; Kerrigan et al., 2020). The impact of educational initiatives, such as a prerequisite First Nations training course prior to admission to university health programs as proposed in other countries, should be explored further (Siemens and Neufeld, 2022).

Prout, Lin, Nattabi, and Green (2014) investigated aspects of three theoretical frameworks in relation to rural health; experiential education theory, situated learning, and transformative education, which assumes effective learning occurs when participating directly in the world. Our findings support the work of Prout, Lin, Nattabi, and Green (2014) by which new graduates highlighted the benefits of ‘on the job’ development to prepare for work with First Nations Australians. New graduates discussed a range of approaches such as team supervision, local traditional community members providing education, and personal reflective practice following interactions with a First Nations Australian. This

poses the question of where the responsibility lies for training new graduate physiotherapists to work with First Nations Australians to begin their cultural safety journey; the pre-professional educational provider, the employer, or the wider profession? Some participants noted they would not have been prepared at all to work with First Nations Australians as a new graduate physiotherapist if their interaction with First Nations Australians was limited or did not occur during pre-professional training. New graduates in our study who experienced a work integrated learning opportunity at the pre-professional level, such as a clinical placement with First Nations Australians, valued this training experience as it positively impacted their level of preparedness as a new graduate physiotherapist, compared to those who did not receive work integrated learning opportunities. This finding is not surprising given the paramount importance of work integrated learning in shaping student capabilities to transition successfully into the health professional workforce (Stoikov et al., 2022; Wells et al., 2021) including work integrated learning within Indigenous communities (Mendez, Brown, Marsch, and Lavallee, 2021). The results highlight that pre-professional programs still play an important role in contributing and shaping cultural practices at the pre-professional stage through work integrated learning opportunities but a large proportion of culturally safe practice is established through 'on the job' development.

Lin, Coffin, Bullen, and Barnabe (2020) discussed that optimal care for First Nations Australians goes beyond the patient centered model and includes the understanding of First Nations Australians' specific social and cultural upbringing which builds trust and helps to facilitate connection and rapport. Similarly, our study demonstrated that new graduates were able to recognize the importance of cultural training that was embedded to the specific community in which they were working as a physiotherapist or when the opportunity arose during their pre-professional training. Our findings highlight that immersion in the local culture, and engaging in specific local cultural training, helps the new graduate to understand the local community priorities, and the values of the First Nations Australians.

This research highlighted the value new graduates placed on training that is provided by First Nations Australians, local community members, or First Nations training organizations with a focus on the cultural values, health priorities, and histories that were inherent to the specific communities in which they worked. Kerrigan et al. (2020) found that healthcare providers working with a high First Nations caseload sought more cultural education that was developed and

delivered by First Nations Australians, to allow them to consciously explore both First Nations and non-First Nations cultures. With such reflections from new graduates, and healthcare workers, as highlighted by Kerrigan et al. (2020) it is important to acknowledge that First Nations Australians only represent approximately 3% of the broader Australian population, therefore it may not always be feasible or transferrable for teaching and training of new graduate physiotherapists to be provided by First Nations Australians in specific communities. It is important to recognize that cultural training does not always need to be provided in traditional training formats but through experiences that allow a person to critically self-reflect to understand the differences between cultures and any unconscious or personal bias (Kerrigan et al., 2020). New graduates in this study did not explicitly discuss whether their preparation and training evoked their critical self-reflection skills, however it is recognized that in order to provide culturally safe health care, health professionals need to engage in critical reflexivity (Australian Health Practitioner Regulation Agency, 2020; Curtis et al., 2019; Dawson, Laccos-Barrett, Hammond, and Rumbold, 2022). There is a dearth of literature regarding best practice approaches for teaching reflexivity as a cultural safety skill at the pre-professional level. Dawson, Laccos-Barrett, Hammond, and Rumbold (2022) systematically reviewed the available literature regarding educational approaches for reflexivity across several pre-professional health programs including: nursing; speech and language pathology; audiology; physiotherapy; medicine; health science; occupational therapy; social work; midwifery; pharmacy; mental health; and podiatry across Australia, Aotearoa New Zealand, Canada, and the United States. The authors found varied approaches and interventions and summarized that reflexivity was mostly used as a method for achieving other learning outcomes such as developing self-identity, held beliefs, relationality, and context when it came to cultural safety. Our study adds to the literature and highlights the importance of new graduate physiotherapists having access to specific training at the pre-professional level through various approaches to learning. To support graduates' reflexivity and preparation, these approaches include peer supervision and dedicated self-reflection, without reliance solely on work integrated experiences.

It has been documented that new graduate physiotherapists face unique challenges when entering the health workforce. Murray, Sundin, and Cope (2019) highlight the importance of understanding the transition from student to health practitioner as it can impact on the clinical competence of the practitioner. Working

with First Nations Australians requires recognition of the shared history that contributes to intergenerational trauma, racism, and culturally unsafe healthcare systems. This context potentially creates further demands on a new graduate physiotherapist. Therefore, if a physiotherapist is not adequately prepared to work with First Nations Australians, there is a risk of culturally unsafe practices, leading to profound impacts on the quality of care provided (Durey, Thompson, and Wood, 2012; Jones et al., 2019).

Implications

This study highlights that new graduate physiotherapists with lived experience of working with First Nations Australians perceive that both pre-professional training and 'on the job' development contributes to perceived preparedness. The study suggests that a continuum of varied training experiences across the pre-professional and graduate level is required to support new graduate physiotherapists. It is highlighted that training should provide opportunities to view First Nations health through a strengths focused lens, which combines multimodal approaches such as theoretical based learning, work integrated learning, and critical self-reflection. The study also reinforces the understanding that the responsibility of training of new graduate physiotherapists is shared by the pre-professional training provider, employer, and the wider profession. Physiotherapy pre-professional training providers will need to continue to develop First Nations curricula and consider ways to offer work integrated learning opportunities in both rural and urban settings, to foster new graduate preparedness and support their cultural safety journey. Pre-professional training providers should also consider how First Nations' knowledges are integrated and embedded in the curricula through considering partnerships with First Nations community members or community organizations. Further research to delineate the needs of new graduates across urban and rural settings and between different workplace settings is warranted.

Limitations

There are challenges that arise when conducting qualitative research which must be considered in this study. Although exploring the perspectives of new graduate physiotherapists is vital to assist with reviewing training needs of the profession to work with First Nations Australians, it is important to

ensure that the perspectives of First Nations Australians are considered when making recommendations for curriculum changes regarding First Nations health. It is acknowledged that there are many layers involved to ensure positive outcomes for First Nations Australians and gaining the insights of First Nations Australians is central to the overall goal of closing the health gap.

Although participants were recruited from multiple regions (i.e. urban and rural settings) and across most states within Australia to assist with the generalizability of the results, it should be acknowledged that each pre-professional program offers a different program design. Although participant selection was not limited to Bachelor's Degrees, there were no participants from entry-level Masters or Doctor of Physiotherapy programs, thus potentially impacting the generalizability of the results. Furthermore, this study did not explicitly explore the differences in workplace training exposure that was available to new graduates that were in an urban versus rural setting. Future research should consider the relationship and unique factors that exist when comparing training opportunities that are available in urban and rural settings, considering that majority of First Nations Australians live in urban regions (Australian Bureau of Statistics, 2016).

Another potential limitation of this research is that the lead researcher (CN) was known to some of the participants because of their position within the pre-professional system and work conducted in the physiotherapy professional body in First Nations Australians health. To reduce the impact of this, a secondary analysis was conducted by a member of the research team (RF) and all transcripts were de-identified prior to analysis undertaken by both researchers.

Conclusion

This study has explored the unique perspectives of new graduate physiotherapists regarding their perceived preparedness and training needs for working with First Nations Australians. The results suggest that new graduates may benefit from work integrated learning opportunities and relevant teachings of First Nations culture and health at the pre-professional level that is scaffolded and applied across the continuum of training. Graduates identified that this continuum of training extended into their professional career where they emphasized the important role that the workplace plays in providing training and development opportunities to promote culturally safe practice with First

Nations Australians (Australian Institute of Health and Welfare, 2015a). By bringing attention to the potential gaps in current pre-professional and professional training methods there is opportunity to better prepare new graduate physiotherapists to work with First Nations Australians.

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