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A kaupapa Māori approach to exploring the experiences of Māori paramedicine tauira: A qualitative study

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Abstract

Background: Māori face significant inequities in health care, access and outcomes. One approach to reducing these inequities is to increase Māori representation in the health workforce, including paramedicine. Despite this, Māori remain underrepresented in paramedicine, from tertiary education to the paramedic workforce, with limited research understanding this gap. This study aimed to explore the experiences of Māori paramedicine tauira (students) at Auckland University of Technology, Aotearoa New Zealand.

Methods: This qualitative study, underpinned by a kaupapa Māori methodology, involved an in-depth, full-day wānanga with seven Māori paramedicine tauira. The research aimed to understand the key barriers and enablers that influenced tauira Māori participation and engagement in paramedic tertiary education. A general inductive approach, underpinned by kaupapa Māori principles, was employed to analyse tauira Māori experiences.

Results: Three key themes were identified: (1) Mana-Enhancing Environments and Experiences, (2) The Impact of Westernised Institutions, and (3) Cultural Safety within Institutions. Māori paramedicine tauira identified culturally appropriate teaching practices, culturally safe learning environments and supportive relationships as key factors contributing to positive, mana-enhancing experiences. Key barriers to their experiences and participation were identified as culturally inappropriate teaching practices, culturally unsafe learning environments and placements, a lack of Māori-focused content and insufficient cultural safety education.

Study Implications: The findings of this study suggest significant implications for improving Indigenous participation and engagement in paramedic tertiary education. By identifying and addressing barriers to participation and engagement, it is possible to improve the experiences and completion of paramedic qualifications among Indigenous peoples. This, in turn, can increase Indigenous representation in the ambulatory workforce and contribute to mitigating health inequities faced by Indigenous communities.

Keywords

Māori, indigenous, student experience, kaupapa Māori, indigenous health, emergency medical services, pre-hospital, paramedicine, qualitative, health workforce development

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Introduction

In Aotearoa New Zealand, inequities exist between different ethnic groups.[1] Māori, the Indigenous peoples of Aotearoa New Zealand, experience significant inequities in health care, access, quality and outcomes, including lower life expectancy and higher morbidity rates compared to non-Māori.[2,3] Such inequities stem from Aotearoa New Zealand's complex colonial history, which saw Māori

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subjugated and dispossessed of their land and resources, as well as the suppression and marginalisation of culture and knowledge.[4] To address health inequities experienced by Māori, literature suggests increasing the number of Māori in the health workforce as a strategy.[5] This suggestion is informed by a growing body of evidence highlighting persistent health inequities, treatment disparities, and the continued failure of health services to provide culturally safe and appropriate care for Māori, issues that are partly attributable to the limited cultural concordance between health professionals and Māori patients.[6–10] Despite this recognition, Māori remain underrepresented in the health workforce relative to their population size, accounting for only 8.5% of the workforce despite comprising 19.6% of the national population.[11,12] This underrepresentation is evident across key health professions, with approximately 6.9% of nurses,[13] 5.1% of doctors,[14] 6.3% of registered paramedics,[15] and 13.7% of midwives[16] identifying as Māori. The limited presence of Indigenous health professionals can be explained by the complex combination of social, cultural, demographic, academic and financial barriers.[6]

Of key concern are the challenges Māori face in accessing, participating in and completing tertiary education.[17–19] This extends to health-related tertiary education, which is typically a prerequisite for regulated health professions and by extension, the Māori health workforce. Nonetheless, Māori represent only 12.5% of all tertiary education enrolments, with evident underrepresentation in health-related programmes, including in nursing, medical, pharmacy and notably, paramedic programmes.[20–24] Central to the success of tauira Māori (Māori students) in health-related tertiary education are culturally appropriate teaching practices and learning environments, culturally safe and supportive peers and lecturers and culturally relevant content – all of which empower tauira Māori in health programmes.[6,25] While extensive literature identifies the key factors contributing to the success of tauira Māori in health-related tertiary education, including medicine, nursing and midwifery, comparable insights into these factors for tauira Māori in paramedicine remains limited.[26–29] Nevertheless, tauira Māori offer invaluable insights and guidance into how tertiary education can be enhanced and improved.[30,31] Therefore, this research sought to understand the experiences of Māori paramedicine tauira in paramedic tertiary education, thereby addressing this knowledge gap.

This paper presents findings from a full-day wānanga (a collaborative discussion for collective thinking and problem-solving) with seven Māori paramedicine tauira involved in Māori and Pacific Medics (MAPmedics), a student-led support programme for Māori and Pacific paramedicine tauira at Auckland University of Technology (AUT), Aotearoa New Zealand. The wānanga explored the experiences of tauira Māori within AUT paramedicine programmes.

Paradigm

This research is grounded in an Indigenous paradigm, specifically a kaupapa Māori paradigm.[32,33] This approach has been employed in response to the historical experiences Māori have had with colonialism.[34] A Westernised perspective on Māori epistemology (ways of knowing), ontology (ways of being) and axiology (values and ethics) perpetuates the belief that Indigenous worldviews are invalid, while claiming that Western colonial institutions know what is best for Māori.[34,35] As such, this paradigm challenges the colonial positivist rationalism in support of Māori-centred social constructionism, as this has significant implications for research interests, approaches and practices.[35] Alignment with this paradigm requires the researcher to reflect Māori epistemologies, ontologies, and values. The lead researcher (FMS), embodies this positioning, having been raised within both Te Ao Māori (the Māori world) and Te Ao Pākehā (the Westernised world). While not fully immersed in both, their worldview predominantly aligns with Te Ao Māori, shaped by their upbringing and education.

Methods

Kaupapa Māori methodology

Situated within a kaupapa Māori paradigm, this study employed kaupapa Māori methodology. This methodological stance reflects a 'for Māori, by Māori' approach to research grounded in Te Ao Māori, facilitating the decolonisation and indigenisation of research.[36,37] Consequently, it aims to understand the aspirations of Māori, contributing to meaningful, beneficial and transformative change for Māori.[32,38,39] Kaupapa Māori methodology was used throughout all aspects of this research including design, data collection, data analysis and research dissemination.[33] In the context of this study, kaupapa Māori research (KMR) represents a commitment to: developing the Māori paramedic workforce; ensuring that the research has positive benefits for Māori paramedicine tauira; and contributing towards the success of Māori paramedicine tauira through its recommendations. Additionally, KMR necessitates employing a non-deficit, non-victim-blaming approach to analysing and interpreting kōrero (speech, discussion, conversation); it also requires research team members to acknowledge their positionality, maintain reflexivity and engage in culturally safe practices throughout the research process.[36,38]

Positioning in the research

A kaupapa Māori research positioning was utilised in this research, as it centres Māori knowledge, worldviews and experiences through a critical and decolonising

perspective.[33] To ensure the research was responsive to Māori, it was led by Māori researchers (FMS, DH). The lead researcher (FMS) is a novice insider researcher, having recently completed a Bachelor of Health Science (Paramedicine) degree at AUT. This positioning allows participants to share their experiences openly with minimal power differences among the collective, helping to restore power, voice, and mana to those involved in the research.[38,40] The senior supervisor (DH) is an experienced kaupapa Māori researcher who, during this research, was a senior lecturer in the Department of Māori Health at AUT. Both the lead researcher and senior supervisor were involved at all stages of this research.

Recruitment/participants

The inclusion criteria were Māori aged 18 years or older who were current or former paramedicine students enrolled in (or graduates of) either the Diploma in Paramedic Science or the Bachelor of Health Science (Paramedicine) programme at AUT. Participants must have also attended MAPmedics at least once.

In Aotearoa New Zealand, there are two paramedic tertiary education providers: AUT and Whitireia. MAPmedics is a student-led initiative at AUT that provides a culturally safe and supportive environment for Māori and Pacific tauira in the paramedicine programmes.[41] Grounded in the principles of whakawhanaungatanga (the process of developing meaningful relationships) and manaakitanga (providing hospitality, kindness, and support), MAPmedics facilitates regular gatherings that foster connection, collective learning, and the sharing of kai. Through these gatherings, the initiative aims to enhance the academic, pastoral, cultural, and spiritual wellbeing of Māori and Pacific paramedicine tauira, with support and mentorship from academic staff and Māori and Pacific paramedic mentors.[41]

Participants were recruited from MAPmedics based on whanaungatanga (established, reciprocal relationships) with the lead researcher (FMS), a key component of KMR. Whanaungatanga is crucial for establishing and maintaining trust for Māori participation in research.[42,43] A pānui whakaahua (information pamphlet) outlining the kaupapa (matter for discussion) and inviting participation was shared with tauira Māori who had pre-existing relationships with the lead researcher (FMS). This pānui was also disseminated via social media platforms such as Instagram, Facebook and LinkedIn. In addition, snowball recruitment was used to identify further potential participants. These methods align with KMR as using a pānui whakaahua upholds KMR principles of tino rangatiratanga (self-determination) and whakamana (empowerment), allowing tauira Māori to decide if the kaupapa aligns with them and whether the lead researcher (FMS) is the most suitable person to hear and represent their experiences.[44,45]

Data collection

In February 2024, a kanohi-ki-te-kanohi (face-to-face) wānanga was held with seven Māori paramedicine tauira. The location was chosen by tauira Māori to ensure a culturally safe space for sharing kōrero. Wānanga, as a Māori relational methodology, enables the collective sharing and development of mātauranga Māori (Māori ways of knowing, knowledge systems) in a culturally safe environment through whakawhitiwhiti kōrero (discussion, communication and deliberation).[43] During this process, tauira Māori shared and reflected on their experiences as Māori paramedicine tauira and their aspirations for change within the paramedicine space. Guided by an experienced kaupapa Māori researcher (DH), the wānanga followed tikanga Māori (practices, methods, and protocols grounded in Te Ao Māori). The wānanga began with a karakia tīmatanga (opening prayer) and a mihimihi (introductions), followed by setting the tikanga of the wānanga. Whakawhanaungatanga took place, where everyone present shared who they are and where they come from. Following this, kai (food) was provided as a form of manaakitanga. The main kaupapa of the wānanga had no set agenda but explored the experiences of Māori paramedicine tauira using two broad, open-ended questions, allowing further questions to arise naturally during discussion. A range of activities related to the research questions also helped to foster kōrero. After the wānanga, kai was provided to whakanoa (removal of sacredness) and the session was concluded with a karakia whakamutunga (closing prayer). The wānanga was audio recorded and subsequently transcribed.

Ethical considerations

Ethics approval was granted in December 2023 by the Auckland University of Technology Ethics Committee (AUTEC; Approval Number 23/304).

Māori paramedicine tauira that participated provided written informed consent on the day of the wānanga. Consent forms, audio recordings, and transcripts were securely stored in accordance with AUT's ethical requirements and Māori ethical and data sovereignty frameworks. Access was restricted to the lead Māori researchers (FMS, DH).

Data analysis

A general inductive approach, guided by kaupapa Māori principles, was employed to analyse the kōrero. This enabled key experiences to be identified and understood, and supported the subsequent development of significant themes aligned with the aspirations and intent of the research.[46]

Analysis began with the lead researcher (FMS) immersing themselves in the audio-recorded wānanga kōrero, closely attending to linguistic features such as tone, silence,

laughter, sarcasm and transition between ideas, while simultaneously reviewing the written transcripts. This approach enabled the lead researcher (FMS) to (re)familiarise themselves with the kōrero by (re)exploring, (re)engaging, and reliving the wānanga. After repeated engagement with this process, the lead researcher (FMS) identified common experiences and developed meaning-based headings that reflected the researcher's interpretive understanding of what these experiences signified.[47] These commonalities were explored through a whakapapa (lineage, connections) lens, enabling the experiences to be understood relationally and in connection with broader contexts, including intrapersonal, interrelational and institutional factors.[48] Employing a whakapapa lens aligns with KMR by narrating the dynamic and evolving story of kōrero, instead of just refining kōrero to fit into categories, as typically done in Western paradigms and analysis approaches.[49] Through continued review and framing, these interpreted understandings were progressively refined and conceptualised. These informed the development of prominent themes linked to the research's purpose by the lead researcher (FMS). These themes were then discussed and reviewed with DH and SP, informing further refinement and interpretation into sub-themes to reflect the broad range of Māori paramedicine tauira experiences. Finalisation of the themes and subthemes were undertaken collaboratively with SP.

Results

Of the seven Māori paramedicine tauira that participated, five identified as female and two as male. All participants were enrolled in the Bachelor of Health Science (Paramedicine) degree and were at different stages of their studies, with six in their third year and one in their second year. Participants had diverse experiences and upbringings in relation to Te Ao Māori. Among tauira Māori, two spoke te reo Māori fluently and completed their schooling in Māori-medium settings.

From the kōrero, three main themes emerged: (1) Mana-Enhancing Environments and Experiences, (2) The Impact of Westernised Institutions, and (3) Cultural Safety within Institutions.

Mana-enhancing environments and experiences

The first theme that was developed from the kōrero was mana-enhancing environments and experiences. *Mana* is a spiritual force associated with integrity, authority and power, which can be inherited or accumulated through one's actions and achievements.[33,50,51] This theme explored the experiences and environments that upheld and enhanced the mana of Māori paramedicine tauira. The two most commonly identified experiences and environments that enabled the enhancement of mana for Māori paramedicine tauira were: (1) The Presence of Whakawhanaungatanga/Whanaungatanga and (2) Teaching Practices and Learning Environments.

This theme is informed by the whakataukī (proverb), '*kaua e takahia te mana o te tāngata*' (do not trample on the mana of the people) and speaks to the importance of respect and upholding the mana of people you interact with. Maintaining or enhancing someone's mana fosters positive outcomes as it enables Māori to lead, empower, advocate and make decisions that benefit both themselves and the collective.[52,53]

The presence of whakawhanaungatanga/whanaungatanga.

Whakawhanaungatanga is the process of developing meaningful connections with others through shared experiences.[43] Once established, these connections become whanaungatanga, describing relationships formed and maintained through shared understanding, mutual trust and respect.[26,51] For tauira Māori, engaging in whakawhanaungatanga to foster whanaungatanga with peers and lecturers was a key mana-enhancing experience within the paramedicine programme, particularly given the underrepresentation of Māori lecturers and peers.

Whakawhanaungatanga between Māori and non-Māori tauira helped cultivate a supportive, non-competitive atmosphere, which contributed to a united paramedicine student community.

> [sic] 'cause people are trying to help each other out… it's like everyone wants everyone to succeed.

Some tauira Māori emphasised the importance of these connections for collaborative study and academic success, stating that they would not have learnt as much without their non-Māori peers. However, one tauira Māori noted that regular class attendance was essential to establish such connections.

Similarly, tauira Māori identified whakawhanaungatanga with non-Māori paramedicine lecturers as beneficial. While most non-Māori lecturers were described as creating mana-enhancing experiences and environments, Māori paramedicine tauira felt more comfortable with lecturers who frequently engaged in MAPmedics.

> The lecturers are so supportive and you know no matter what you say or do, they're going to be honest, open and supportive… I don't know, I feel safe in that space.

Due to established whanaungatanga with these non-Māori MAPmedics lecturers, Māori paramedicine tauira viewed them as culturally safe, non-judgmental, supportive, and mana-enhancers. Consequently, tauira Māori were more likely to raise academic or personal issues with non-Māori MAPmedics lecturers and often gravitated towards them during lectures and tutorials.

> Knowing that you have those lecturers in those classrooms makes you so much more comfortable… I find myself gravitating towards him if I have any questions just cause I'm really comfortable with him…

Teaching practices and learning environments. Practical teaching methods that were engaging and kanohi-ki-te-kanohi were identified as the most beneficial for Māori paramedicine tauira. Tauira Māori appreciated the diverse teaching methods used within the paramedicine programme, particularly the combination of visual, audio and practical approaches, which effectively supported their understanding of paramedicine concepts.

> … It didn't matter what you were, you still got the benefits of his teaching because… he broke it down… and covered everyone's different ways of learning.

These methods were further supported by a range of teaching resources, including practical-based scenarios, interactive tools such as Kahoot and whiteboard sessions, all of which were valued by tauira Māori because they were enjoyable, engaging, and enhanced learning.

The impact of Westernised institutions

The second identified theme explored the experiences of Māori paramedicine tauira within Western educational institutions. Tauira Māori discussed aspects of their experiences, particularly the impact of Western institutions in three distinct ways: (1) Teaching Practices, (2) Paramedicine Curriculum and Content, and (3) Support Systems.

Teaching practices. Tauira Māori shared experiences of teaching practices they found unhelpful and discussed the challenges these posed to their learning. One prominent issue was the lack of engagement during in-person lectures, where lecturers simply read from the slides. Māori paramedicine tauira expressed that such lectures were unproductive and could have been watched from home instead.

> … you literally just sit there and listen… it can just come out in one ear and out the other.

When tauira Māori did not understand the content being taught, they often chose to remain silent rather than ask questions during lectures for fear of embarrassment. Although they often told the lecturer that the material made sense, they relied on MAPmedics sessions for support in fully understanding the content. One tauira Māori highlighted their struggle with the content, noting that they found the medical language used by lecturers difficult to understand.

> I think for me personally, coming from kura kaupapa (full immersion Māori school)… it was challenging to get used to the different types of language each lecturer uses.

Further compounding these issues was the expectation for tauira Māori to engage with supplementary reading materials. For those already struggling to understand lecture content, these additional resources were often equally difficult to comprehend. This created a time-consuming and stressful process, requiring extra effort just to achieve a basic understanding of the material.

Paramedicine curriculum and content. All Māori paramedicine tauira recognised the need for improvement in the teaching of Māori-focused content and cultural safety. Tauira Māori expressed that cultural safety content did not fully address their needs and they felt unprepared to provide culturally safe care, including for Māori.

> … we come across heaps of cultures… but no one knows how to approach all of these different cultures…

In response to these challenges, Māori paramedicine tauira suggested that cultural safety be embedded across all papers and incorporated into clinical simulations. Additionally, one tauira Māori proposed making the non-compulsory Hauora Māori paper compulsory within the curriculum.

> … [sic] 'cause at the end of the day, cultural competency doesn't just apply to Māori and Pasifika… it also applies to Pākehā so… it would benefit everyone.

Support systems. Navigating and accessing university support presented a number of challenges for Māori paramedicine tauira, particularly in relation to assessment extensions and placement-related support. Obtaining extensions during tangihanga (bereavements) proved especially difficult. During their studies, two tauira Māori shared experiences of being asked to provide a death certificate, describing the request as untimely and unreasonable and an additional source of stress during an already challenging time.

> … it was kind of a struggle to get that extension and I know that obviously they have to have some sort of proof, but like perhaps a little bit more understanding would be less a stressful time, times where you don't want more stress…

Some tauira Māori were also unaware of available support options, such as the ability to take a leave of absence, which may have provided much-needed relief following the loss of a close family member.

> I lost a close family member… it was hard to figure out what kind of support you get while you're grieving…

Tauira Māori also reported being largely unaware of placement-related support, such as assistance following challenging placement experiences.

Cultural safety within institutions

The third theme identified from the insights of Māori paramedicine tauira centred on experiences of cultural safety across various institutions, including university and the ambulance service. Māori paramedicine tauira identified two key experiences of cultural safety within and across these institutions: (1) Cultural Safety on Placement and (2) Cultural Safety of Lecturers and Peers.

Cultural safety on placement. Māori paramedicine tauira described several positive experiences of cultural safety with placement mentors, the majority of whom were Māori or Pasifika. However, they also noted instances where non-Māori and non-Pacific mentors demonstrated culturally safe practice, particularly when using a holistic approach to patient care.

> Non-biased…they were the same as they were with the elderly white person and they were with Māori… they were… Consistent.

However, the majority of experiences shared by Māori paramedicine tauira were described as culturally unsafe. All tauira Māori who participated in this study described experiencing culturally unsafe mentors during their placements, particularly within the ambulance service. Experiences of cultural unsafety included discriminatory comments made by mentors 'in the back of the ambulance', where, in the presence of tauira Māori but away from the patient, mentors made assumptions about the patient's need to engage with the ambulance service.

> I was on placement and we were going to a patient who's obviously Māori… and the mentor was like [they] wouldn't have been taking their pills… you know, **typical Māori**.

Māori paramedicine tauira described how discrimination extended beyond comments made 'in the back of the ambulance' to culturally unsafe clinical practices. These experiences included encounters with ambulance officers who intentionally omitted patient ethnicity from documentation, demonstrated a lack of cultural awareness and safety in their interactions with patients and whānau (family), and continued to mispronounce Māori names despite being educated on the correct pronunciation.

> I had a mentor that was calling their Māori patient the wrong name… faced with challenges of pronunciation, the non-Māori mentor openly acknowledged this difficulty [to the Māori patient]. This disintegrated the rapport between the non-Māori mentor and the elderly Māori patient…

These experiences of cultural unsafety had a considerable impact on Māori paramedicine tauira, with many expressing that they felt uncomfortable and lacked the confidence to speak up against mentors to avoid creating tension during the shift. As a result, they struggled to work effectively with culturally unsafe crews, as they felt unsupported.

> When I had bad crews, I didn't work nearly as well as I would have with a good crew… they made me so intimidated… so I questioned myself… [with] something that I wouldn't struggle with at all…

Cultural safety of lecturers and peers. Māori paramedicine tauira generally agreed that the majority of non-Māori paramedicine lecturers were culturally safe. Tauira Māori described culturally safe non-Māori lecturers as welcoming, non-judgmental and actively seeking to understand the tikanga and kawa (Māori customs, protocols and practices) of Māori paramedicine tauira.

> I think most of our non-Māori lecturers are really culturally competent, personally, cause' like I've had no real issues with any of them being like racist or I've never felt like a minority.

Culturally safe lecturers eased the impact of having few Māori lecturers; however, one tauira Māori described the transition from Māori-medium education to an environment without visible Māori as particularly challenging.

While most non-Māori lecturers were considered culturally safe, some Māori paramedicine tauira shared experiences with lecturers they perceived as culturally unsafe. These lecturers were described as intimidating and left tauira Māori feeling intellectually inadequate, which made it difficult for them to engage. One tauira Māori described feeling discriminated against due to being Māori during correspondence with a paramedicine lecturer. Consequently, some tauira Māori expressed that they would avoid spaces like MAPmedics if these lecturers attended.

> …For me, it's about their cultural safety and you can feel it from a mile away, like when you walk into a room and you can just feel that… they're not as inviting as other staff members…

Māori paramedicine tauira shared similar experiences with their peers in the paramedicine programmes, noting that non-Māori peers, particularly Pasifika peers, were often culturally safe. However, there were instances where non-Māori and non-Pacific peers demonstrated cultural insensitivity, including making culturally unsafe comments

about placements, patients and cultural safety and competency content.

> Some of the students… they'll get ticked off for cultural competency and they might do really well but you'll hear them talk about jobs… and the things they're saying don't align with what they would have written… they don't actually believe in it. You're just writing to tick the box.

Discussion

This kaupapa Māori qualitative study sought to explore and understand the experiences of Māori paramedicine tauira within paramedic tertiary education in Aotearoa New Zealand. The research was underpinned by a kaupapa Māori paradigm, methodology and principles, which centred Māori knowledge, ways of knowing and being, values, and narratives. This approach provided a Te Ao Māori lens that critically analysed systems and the root causes of inequities, enabling the decolonisation and indigenisation of research.[32,36,38,54] A wānanga with seven Māori paramedicine tauira identified three prominent themes: (1) Mana-Enhancing Environments and Experiences, (2) The Impact of Westernised Institutions, and (3) Cultural Safety within Institutions.

Whakawhanaungatanga (the process of developing meaningful relationships) and whanaungatanga (established, reciprocal relationships) were identified as key factors contributing to mana-enhancing experiences for Māori paramedicine tauira. This finding aligns with a substantial body of national and international literature highlighting the importance of building and maintaining relationships to support the engagement, retention and completion of healthcare degrees among Indigenous students.[17,27,55–59] Given the underrepresentation of Māori paramedicine peers and lecturers, Māori paramedicine tauira valued their culturally safe and supportive relationships with non-Māori. Peer connections fostered a cohesive cohort while supportive relationships with lecturers provided a trusted space for discussing academic and personal issues. Such positive relationships with non-Māori educators and peers are crucial, as they establish a strong foundation for learning and improving educational outcomes for tauira Māori.[29,60–62]

Teaching practices and learning environments that were kanohi-ki-te-kanohi, engaging and incorporated a range of resources and delivery methods were perceived as mana-enhancing, culturally appropriate, and supportive for tauira Māori, as they aligned with Māori beliefs and values.[26,27,51,58,63,64] Conversely, Māori paramedicine tauira described negative experiences that arose from teaching that was difficult to understand, lacked engagement, presented excessive material, or created an environment where tauira Māori felt unable to ask questions. These experiences highlight the colonial underpinnings of educational practices, which continue to privilege Westernised systems as inherently superior to Māori systems and knowledge.[33,59,65] In these settings, tauira Māori are expected to conform to Western norms rather than institutions adapting their educational approaches to better meet the needs of tauira Māori.[64] Institutions maintaining these Western pedagogical norms often interpret poor academic outcomes, disengagement and limited participation as deficiencies in tauira Māori, rather than as indicators of structural intimidation.[26,64,66] However, assimilation would not be necessary if Māori paradigms were incorporated into educational settings to form the foundation of teaching practices and learning environments.[64] Challenging current teaching practices and learning environments requires confronting and dismantling the institutional privilege and systemic racism that have perpetuated educational inequities for tauira Māori.[1,17] If institutions are unable to challenge and make changes to their teaching practices and learning environments, it may be an opportune time to consider developing a kaupapa Māori paramedicine programme within a whare wānanga (a Māori-medium tertiary education institution).[67]

Graduates of Māori-medium education reported challenges in understanding the biomedical terminology used by lecturers, a fundamental aspect of all health disciplines. While the use of this terminology cannot be avoided, allocating additional resources and providing targeted support are essential to improving the transition to tertiary education.[26,64] Failure to implement such accommodations would maintain colonial ideologies and perpetuate the misconception that Te Ao Pākehā and Te Ao Māori cannot coexist.[68] As such, further research is needed to better understand the experiences of tauira Māori as they transition from Māori-medium education into tertiary paramedic education.

The need to improve Māori-focused content, particularly in relation to Te Tiriti o Waitangi, inequities and colonisation, was widely acknowledged by Māori paramedicine tauira. This is not isolated to paramedicine; rather, it highlights the fact that content related to Te Ao Māori is seldom integrated into the broader curricula of healthcare degrees, further marginalising Māori knowledge in favour of Western perspectives.[17,27,64,69] Despite genuine attempts to incorporate Māori-focused content into the mainstream paramedicine curriculum, it was often seen as exclusionary and perpetuated a deficit model, with Māori-focused content relegated to a separate paper.[17,59,64,70] Consequently, the lack of content validating Māori epistemologies, ontologies and axiologies undermined the cultural identity of Māori paramedicine tauira.[6,25,57] This resulted in cultural dissonance for those raised within Te Ao Māori, while those with limited exposure felt alienated, disconnected and marginalised. Such findings are not uncommon and highlight the importance of culturally relevant educational content in affirming the cultural identity and self-identity of tauira Māori, thereby contributing to their success as Māori in

tertiary education.[17,25,57] Nonetheless, the cultural load of incorporating Māori-focused content should not fall entirely on Māori paramedicine educators merely because they are Māori, as such an expectation is culturally unsafe and disregards the need for equitable responsibility in educational settings.[71] However, increasing the representation of Māori academics within paramedicine could ensure that Māori-focused content is informed by Māori knowledge and realities, ensuring tauira Māori can relate to both the content and the person delivering it.[64,72]

Improving the paramedicine curriculum also requires further development of cultural safety education. Based on the experiences of Māori paramedicine tauira, many felt unprepared to provide culturally safe care, with some even feeling unable to deliver culturally safe care for Māori. It is concerning that the paramedicine curriculum appears insufficient in addressing cultural safety, despite this being a responsibility outlined in health legislation and as a standard for registered paramedics established by the governing body.[67,73–75] However, this is not an isolated issue within health-related tertiary education.[76–80] Nevertheless, the experiences of Māori paramedicine tauira with cultural safety content highlight a broader issue, namely that institutions have yet to fully realise the importance of self-reflection, self-awareness and accountability as key components of cultural safety, suggesting a potential systemic gap in the institutions' cultural safety.[71,75,81] Perhaps the slow and incremental development and implementation of cultural safety within paramedicine illustrates this, reflecting presumably a very conservative approach to change.[71] However, adequate cultural safety education necessitates both systemic and individual reforms to work toward achieving health equity.[75] Limited prioritisation of such education may reflect a lack of institutional commitment to improving the retention and recruitment of Māori paramedicine tauira and, by extension, addressing the educational and health inequities experienced by Māori.[82]

Curriculum reform that strengthens Indigenous content and cultural safety education at both systemic and individual levels has the potential to improve experiences of cultural (un)safety for Māori paramedicine tauira in their interactions with non-Māori lecturers and peers. However, for this to be realised, it necessitates a commitment from non-Māori educators and peers to engage in a profound process of unlearning.[17,72] For unlearning to occur, non-Māori lecturers and peers must challenge and dismantle dominant historical and social narratives, thereby encouraging self-reflection (a fundamental aspect cultural safety), which if supported, could improve the cultural safety of paramedic educators and peers.[17,70,72] Furthermore, lecturers have a responsibility under Te Tiriti o Waitangi to strengthen their cultural competence and address the unmet educational needs of Māori.[67] If such an outcome is achieved, alongside the systemic and ongoing efforts of institutional policies and initiatives, it is expected that experiences of cultural safety among Māori paramedicine tauira in their engagements with non-Māori lecturers and peers could improve.[83–85]

Racism and discrimination was experienced directly or witnessed by all Māori paramedicine tauira during their placements in this study, particularly on ambulance shifts. Racism and discrimination are frequent experiences for Indigenous health students globally, with Indigenous clinicians facing similar challenges.[27,29,86,87] Despite findings confirming that Māori paramedicine tauira face these issues, such exposure is unequivocally unacceptable and must be urgently addressed.[86] Having Māori or Pacific ambulatory mentors could offer a means to prevent experiences of racism and discrimination, while enabling Māori paramedicine tauira to learn, observe and build their competence as 'Māori' paramedics.[26,27] This approach parallels findings from research with Māori nurses, which emphasise the importance of Māori mentorship in supporting and guiding Māori student nurses.[26,27] Alongside Māori mentorship, empowering resilience and resistance strategies have been found to benefit Indigenous health students in responding to experiences of racism and discrimination, strategies that Māori paramedicine tauira may similarly draw on.[27,88] However, such approaches to addressing racism and discrimination place the onus on tauira Māori, rather than enacting systemic changes.[26,75]

Accessing, understanding and navigating institutional support systems has proven particularly challenging for Māori paramedicine tauira, a finding consistent with literature identifying similar difficulties experienced by tauira Māori in health-related degrees in Aotearoa New Zealand.[6,27,30,57,67] This is understandable, given that tertiary institutions are inherently Westernised and operate within colonial structures.[64] Although this rationale accounts for the difficulties experienced with support systems, it does not justify their persistence. Furthermore, literature consistently underscores the significant impact that support systems have on engagement, retention and qualification completion for tauira Māori.[30,59] Well-resourced and effective programmes should therefore prioritise organisational change, as responsive policies, strategies, support services, and institutional practices can significantly address support system challenges.[6,30,31]

Strengths and limitations

A significant strength of this research lies in its use of a kaupapa Māori methodological approach, which provided rigour while ensuring the research remained under Māori control, was beneficial for tauira Māori and was grounded in Māori epistemologies, ontologies and axiologies.[32,38,89] Despite this strength, it is important to acknowledge that this study was situated within a specific educational and relational context, drawing on the experiences of tauira Māori who had engaged with MAPmedics at the largest

paramedicine tertiary education provider in Aotearoa New Zealand. As such, the findings reflect the perspectives of tauira Māori who were engaged and connected to MAPmedics. However, this may not fully reflect the experiences of Māori paramedicine tauira who are less connected to MAPmedics, including distance learners or those who do not strongly identify as Māori. Additionally, this study may not reflect the experiences of tauira Māori who completed paramedicine programmes at other education providers, as institutional contexts, teaching and learning approaches, and clinical placement experiences may differ. Accordingly, the transferability of these findings to other contexts may be limited. This limitation may also extend to other Indigenous populations, as Indigenous peoples are not homogenous and possess distinct cultural differences.[90]

Future research should explore the experiences of tauira Māori across all paramedic tertiary education providers in Aotearoa New Zealand, as well as the experiences of tauira Māori at AUT who did not engage in MAPmedics. Additionally, research involving a broader cohort of Māori paramedicine tauira, potentially through a longitudinal study, could provide deeper insights into the factors that influence their participation, retention, and completion of paramedic tertiary education.

Recommendations for supporting Tauira Māori success in paramedic education

Drawing on the findings of this research, we put forward a series of recommendations to further strengthen and enhance the experiences of tauira Māori within paramedic tertiary education. Although grounded in this context, these recommendations may also be relevant for improving the experiences of other Indigenous students within paramedicine programmes. The proposed recommendations are as follows:

1. **Improving Māori Representation:** Increasing the presence of Māori academic and professional staff who uphold Māori worldviews is essential for providing culturally affirming academic, pastoral, and cultural support within a Westernised institution. Additionally, mentorship from Māori ambulance officers could improve the learning experience and provide valuable support for tauira Māori as they develop their competence and confidence as future Māori paramedics.
2. **Improving Cultural Safety Education:** Paramedicine educators must lead efforts to incorporate cultural safety into clinical scenarios, assessments and simulations. The use of actors from underrepresented groups in patient roles can provide an effective means of practising cultural safety.[91] Institutions should also provide ongoing, culturally appropriate training in cultural safety for all lecturers, clinicians and paramedicine tauira, including encouragement towards developing critical consciousness through ongoing self-reflection and reflexive practice.
3. **Incorporating Culturally Affirming Course Content:** The integration of Māori content throughout the paramedicine curriculum is essential. This could include the introduction of a compulsory Māori health intensive undertaken by both paramedicine tauira and educators. Key components should include critical examination of Te Tiriti o Waitangi, the historical and contemporary effects of colonisation on Māori, racism and privilege, ethnicity and ancestry, and the structural determinants of inequity. In addition, the intensive should support the development of practical cultural capabilities, including te reo Māori (Māori language) pronunciation and the articulation of a pepeha (self-introduction in te reo Māori).
4. **Creating Culturally Responsive Learning Environments and Pedagogical Practices through Grounding in Te Ao Māori:** Grounding paramedicine learning environments and teaching practices in Te Ao Māori requires that tikanga and core Māori values underpin all aspects of paramedic education. Culturally responsive environments can be strengthened through marae-based learning and cohort models that foster whanaungatanga. Pedagogical approaches should align with *ako*, a practice grounded in reciprocal learning and fluid roles between educator and tauira, which can be enacted through wānanga.[26,34]

Conclusion

Māori paramedicine tauira face a number of mana-enhancing and mana-diminishing experiences that shape their engagement, sense of belonging and overall success within paramedic tertiary education. These experiences are often shaped by the presence or absence of cultural safety and Māori-focused content, culturally appropriate pedagogical practices, inclusive learning environments and culturally safe mentors, lecturers and peers. The marginalisation of Māori knowledge and limited cultural safety in both tertiary and industry contexts can significantly compromise the academic and personal wellbeing of tauira Māori. To support the success of tauira Māori in paramedicine, cultural safety education must be strengthened, Te Ao Māori must be positioned as the foundation of the curriculum to affirm their cultural identity, and learning environments must be fostered where tauira Māori feel seen, valued, and supported.

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Ethical approval and informed consent statement

Ethics approval for this research was granted by the AUTEC. The AUTEC reference for this research was 23/304, with approval granted for this research in December 2023.

Written informed consent was obtained from all participants. Consent documentation is securely held by A/Prof Deborah Heke for up to five years and will be destroyed in accordance with ethical requirements thereafter.

Author contribution(s)

Farren Cristiana Ellen McGregor-Smyth: Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Writing – original draft; Writing – review & editing.
Verity Todd: Project administration; Resources; Supervision; Validation; Writing – review & editing.
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Celeita Williams: Project administration; Resources; Software; Supervision; Validation; Writing – review & editing.
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The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Declarations section

At the time of the study, authors Sarah Penney and Celeita Williams were full-time lecturers within the Department of Paramedicine. Accordingly, they did not participate in data collection and were not permitted to access original identifiable transcripts.

Author Verity Todd is an associate editor at Paramedicine. She played no role in the editorial decision making process, which was conducted in adherence to Paramedicine's published peer review process. All other authors have no conflicts of interest to declare.

Data availability statement

All research data, including audio recordings and identifiable written transcripts, are securely stored on an external hard drive accessible only to author FMS. Data will be retained for five years and destroyed thereafter in accordance with approved ethical protocols.

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- Associate Professor Deborah Heke is no longer a Senior Lecturer at Auckland University of Technology and now is Director of Ngā Wai a Te Tūī Māori and Indigenous Research Centre at Manukau Institute of Technology and Unitec Institute of Technology.
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