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The role of social accountable medical education in addressing health inequity in Aotearoa New Zealand

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ABSTRACT

Medical education provides a locus to apply the principles of social justice to advocate for indigenous health inequities. Within the education field, social accountability measures have been used to increase equity. This study uses a social accountability lens to explore the perspectives and experiences of academic and clinical leaders, students, and patients engaged with the Hauora Māori curriculum at the University of Otago Christchurch. Using Kaupapa Māori research as a theoretical framework, and drawing on qualitative analysis, three themes were identified; horopaki/contexts, mihini/mechanisms and tukunga iho/outcomes. These three themes described the activities, enablers and mechanisms that identified the Hauora Māori curriculum as a method for achieving social accountability among Māori communities, medical education, and health services.

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Introduction

Māori health inequities are well documented (Blakely et al. 2005; Robson and Harris 2007; Signal et al. 2007; Hill et al. 2013; Anderson et al. 2016; Metcalfe et al. 2018; Reid, Cormack, et al. 2018). The ongoing impacts of colonisation, racism, migration and marginalisation in maintaining these inequities are also well documented (Reid and Robson 2000; Blakely et al. 2011; Bécares et al. 2013; Came 2014; Reid et al. 2014; Dew et al. 2015; Harris et al. 2015; Signal et al. 2015; Lawrenson et al. 2016; Denison et al. 2018; Huria et al. 2018; Rahiri et al. 2018; Reid, Paine, et al. 2018).

A recent international consensus statement designated responsibility for medical education institutions to contribute to eliminating indigenous health inequities, through institutional and curricular change (Jones et al. 2019). The consensus statement expectations align with the literature on social accountability, which encourages medical institutions to identify and address health priorities for communities and adapt all activities to address these needs. It also states that 'social accountability is achieved through a structured and purposeful partnership in action between the educational institution and the wider health structures existing in the community, area or region it serves'. (Boelen et al. 2016, p. 1078).

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Despite this mandate, a systematic review of social accountability within medical education highlighted that many studies framed underserved communities through a deficit lens, referring to them either as victims or as places of conflict, and by geography rather than by shared interests or causes. (Ellaway et al. 2016). Such framing has reinforced societal bias in learners, retains power within medical institutions, and directs what interaction occurs within a community, instead of developing meaningful community partnerships. Only a few institutions have documented how they are addressing indigenous health inequities through medical education using a social accountability lens (Crowshoe et al. 2019).

The purpose of this paper is to apply a social accountability lens to explore the perspectives of critical stakeholders, i.e. faculty, health providers, students, and the Māori community. We report how the Hauora Māori (Māori health) curriculum is addressing Māori health inequities at the University of Otago, Christchurch.

Method

The Otago Medical School (OMS) is one of two undergraduate medical schools in New Zealand. The OMS is committed to the Treaty of Waitangi, including addressing Māori health inequities. The OMS has an enrolment strategy for medical students with the intent that the demographic composition of students reflects the society they work in; including the proportion of Māori students (Bristowe et al. 2016; Crampton et al. 2018). All OMS students complete their first three years (early-learning in medicine) in Dunedin, and then the class is divided into three geographical locations for their final three years of training (advanced-learning in medicine (ALM)). The University of Otago, Christchurch (UOC) is one of these ALM sites.

This project is a sub-analysis from a broader study that explored the place of Indigenous health in a medical curriculum (Pitama 2013). The initial research centred on two projects, the first drew on surveys and interviews with indigenous health educators from New Zealand, Australia, USA, and Canada to gain multiple site perspectives to explore the single phenomenon of the indigenous health curriculum. The second drew on interviews with various stakeholders from one site (UOC). Documented elsewhere is a full description of the methodology and methods of the original study (Pitama 2013).

In brief, the study used Kaupapa Māori research as a theoretical framework by which to critically analyse and position the findings and analysis from a Māori world view and to validate Māori perspectives and concepts within the research (Smith 1999, Pitama 2013). A case study design was used to gain multiple views from the single site of UOC (Duff 2008). Case study design aligns with Kaupapa Māori research as it can explore multiple perspectives about the Hauora Māori curriculum and preserve the context in which the story is based (Pitama 2013). It is less likely to favour only one research agenda and can present different perspectives as valid (Yin 2003).

Two selection processes were used to capture multiple stakeholder perspectives. Firstly purposive selection was undertaken to identify stakeholders who had an ongoing level of engagement with the Hauora Māori curriculum. Specifically this included UOC stakeholders (Hauora Māori teaching team, course conveners, and system stakeholders holding senior leadership positions), and health service stakeholders (Canterbury District Health Board, Māori health workers and system stakeholders holding senior leadership

positions). Secondly, to remove selection and research bias, random selection was used for those stakeholders who were participants in the Hauora Māori curriculum (Onwuegbuzie and Leech 2007). A random selection programme (RANDSAMP) was used to draw a nested sample. This sample used the student-patient register to identify three-year cohorts for the following groups; Māori students, non-Māori students and Māori patients (who had been interviewed by students, and consented to have their case presented as a summative assessment).

Most stakeholder interviews were conducted individually to provide an appropriate space for them to share their stories and to ensure acceptable interview times and places. The Māori health workers and the Hauora Māori teaching team preferred a focus group as a safe space for sharing their stories and to collectively hear others' perspectives. Due to logistics, three members of the Hauora Māori teaching team opted for individual interviews. All interviews were conducted by the lead author (Pitama) who was the course convener for Hauora Māori at UOC. A semi-structured interview schedule, exploring six specific areas was used to triangulate data from all cohorts. These areas included; their involvement in the Hauora Māori curriculum, the place of the Hauora Māori curriculum in medical education, the perceived contribution of the Hauora Māori curriculum to the medical curriculum, the implementation of Hauora Māori curriculum, the role of non- Māori in the Hauora Māori curriculum, and the potential place of the Hauora Māori curriculum in medical education.

We uploaded all interview transcripts to NVivo 12 and this platform was used to undertake and complete the analysis. Each participant's voice was weighted equally, regardless of whether they were interviewed individually or as part of a focus group. The sub-analysis that forms part of this study specifically focused on perspectives on social accountability, which was not explored in-depth in the original analysis. For the sub-analysis of this study, inductive analysis was used within the case study design to encode and order the qualitative data (Boyatzis 1998; Auerbach and Silverstein 2003). The initial study used these same methods of coding. Due to the volume of qualitative data, structural analysis was used for the first cycle of coding to initially order the data (Saldaña 2015), using the concepts of context, mechanisms, and outcomes (Ellaway et al. 2016). Structural coding framed participant experiences as reflections of their interactions with the medical and health institutions, instead of through the lens of personal attributes. Descriptive analysis was then undertaken to explore the richness and diversity of the data adequately. The second cycle drew on theoretical coding to make more explicit relationships between codes, develop categories, and identify the emerging themes (Saldana 2015). Authors negotiated criteria for all codes, categories, and themes.

This study received ethical approval from the New Zealand South B ethics committee to interview Māori patients (URA/09/06/039). Ethical approval was also received from the University of Otago B Committee to interview stakeholders from the UOC (Hauora Māori teaching team, students, course conveners, system stakeholders) and the Canterbury District Health Board (Māori health workers and system stakeholders).

Results

Seventy-two participants took part in this study. Table 1 documents each stakeholder group, sample method, and response rates. High response rates in the study highlight

Table 1. Final response rates by stakeholder group.

Stakeholder group	Type of Selection	No. of those initially selected	No. no longer eligible	No. of those that completed interviews	No. re-selected	No. no longer eligible	No. that completed interviews	Total No. in each cohort	Response rate %
Non-Māori Student: Cohort 1	Random selection	8	1[a]	6	0	0	0	6	86
Non-Māori Student: Cohort 2	Random selection	8	0	8	0	0	0	8	100
Non-Māori Student: Cohort 3	Random selection	8	0	8	0	0	0	8	100
Māori students	Random selection	4	0	4	0	0	0	4	100
Course Conveners	Purposive	6	1[b]	5	0	0	0	5	100
Hauora Māori Teaching Team	Purposive	6	0	6	0	0	0	6	100
System Stakeholders	Purposive	4	0	4	0	0	0	4	100
Māori Health Stakeholders	Purposive	8	0	12[c]	0	0	0	12	150
Māori patients: Cohort 1	Random selection	15	7[d]	8	8	5[d]	3	11	100
Māori patients: Cohort 2	Random selection	15	8[d]	7	5	2[d]	3	11	100
Totals		81	18	65	11	5	6	72	

[a]One student had withdrawn from UOC.
[b]Had recently left a position with UOC.
[c]The focus group attracted more participant than were contacted.
[d]Patient had passed away, or our contact information (according to their consent form) was out of date at the time of recruitment.

the acceptability of the research question, research approach, and implementation of the research.

The initial structural analysis codes of contexts, mechanisms, and outcomes continued through each cycle and method of coding. We explored these concepts in te reo Māori, as these translations better adequately captured the overarching themes within the data (Ellaway et al. 2016). Therefore the three themes that were identified from the data were; (1) horopaki/context, which described the activities that supported the space for social accountability. (2) Mihini/mechanism which illustrated the things that ensured ongoing engagement between stakeholders. (3) Tukunga iho/outcomes which identified measures of social accountability. These three themes will now be presented and explored.

Horopaki/context

Horopaki translates to define and understand the depth of a context. This theme encompassed activities that created a social accountability space between community-medical education-health services. These included; advocacy for Māori health, stakeholder investment, and institutional support.

Participants, irrespective of their group, described the Hauora Māori curriculum as both a space to advocate for Māori rights (as indigenous peoples) and to articulate responses to Māori health inequities.

> I think it is very important, you know there are these huge health disparities and something needs to be done about that and tackling that from teaching medical students with the way they interact with Māori patients one on one and with their whānau. Things like that you know right through to kind of public health initiatives, I think its all very important. (Student 001)

> Well, I think we should be supporting Māori, it is very important in everything we do in medicine, the indigenous people of New Zealand have a right to have their health care needs to be addressed, and clinicians needed to be educated about their culture and health needs. (Course Convener 001)

All stakeholder groups identified that the Hauora Māori curriculum created a forum to explore meaningful relationships among the Māori community, medical school, and health services, and to negotiate roles and responsibilities in this space.

Participants highlighted that an increasing Māori health workforce (staff and students) had meant that traditional relationships based on medical institutions being separate from Māori communities were no longer the status quo because Māori held leadership roles within medical education and health services. Due to the leadership roles, many Māori stakeholders organically participated in the design, development, implementation, and monitoring of the Hauora Māori curriculum. Māori community experiences in the health system that either maintained health inequities or contributed to Māori health advancement were used to inform student-learning outcomes.

> Having worked in a Māori provider it was easy from the other side of the fence to see the gaps in professional attitudes when they were working with Māori patients and whānau, so that is one of the reasons why I was quite interested in being involved in the Hauora Māori curriculum. (Hauora Māori teaching team, 001)

> I am concerned a how poorly many Māori do in our health system and often the feedback that I receive from people who come through our health system, and how they are treated directly relates to that person's knowledge of Hauora Māori, tikanga Māori and just Māori models of doing things. (System stakeholder 001)

> I think for Māori patients it is getting the medical students to make us feel more comfortable to get them to talk more so that they have a better relationship … so when the doctor says hey this is what you should do patients trust them. I think that's important and I don't think that's been going so good in the past because I think we listen to people we trust and we have a good relationship with. (Māori patient 001)

Participants, from all stakeholder groups, reported social accountability, as a dynamic process because it could identify and be responsive to community needs.

Participants reported that institutional support was pivotal to resource the Hauora Māori curriculum and to sustain social accountability networks and outputs. Examples of institutional support included access to medical education resources like the curriculum, marae-based learning opportunities, simulated teaching, student-led clinics, and medical education assessment methods.

> I think it's a core competency that sits alongside clinical and ethical competencies that, as a university, we are obligated to ensure our students have in their toolkit for engaging in the community. (System stakeholder 002)

> The knowledge of how poorly Māori do in our health system, and the correlation that this has, with the lack of knowledge of health professionals in our system. It leads me to support strongly, that to improve things for the students … we have to put as much as we can (Hauora Maāori curriculum), in as early as possible, into the curriculum. (System stakeholder 003)

> I was impressed with what the student knew about the Māori world, and the student engaged in building a relationship first, and then took my medical history. The conversation seemed to flow well, and they asked relevant questions. I would definitely be interviewed again. (Māori patient 002)

These educational interventions provided students with the knowledge and skills required to meet community expectations. Local health services provided clinical placements, access to clinicians, and Māori health workers. Māori communities participated in student interviews, were community volunteers, attended student-led clinics, and shared their experiences in the health system.

Mihini/mechanisms

Mihini translates to encompass the concept of being able to mechanise something, to put it into action, to make it happen. This theme identified any person, opportunity, or activity that contributed to the ongoing engagement in the community-medical education-health services that strengthened social accountability relationships. These included an engaging curriculum, relevance to clinical practice, and the role of a teacher.

All students described specific content or learning methods that had triggered their interest and engagement in the Hauora Māori curriculum. Students reported these experiences assisted them to see value in the Hauora Māori curriculum and understand their social responsibility to Māori health advancement. Māori patients highlighted that they enjoyed the opportunity to engage with and contribute to the education of the emerging

health workforce. Māori health workers valued working alongside the Hauora Māori teaching team, for example in the development of case scenarios, as 'actors' in simulated teaching sessions, and in providing feedback from their interactions with students, Māori patients, and clinician within clinical settings

> We got slightly further through and started talking about some of the more advanced concepts of Hauora Māori, and in particular how it relates to working in medical practice, then it had some benefit in particular to the role-playing type scenarios. I think that was the best teaching session. And then my assessment which was when I got to interview a real person (Student 002)

> The other positive thing … is you guys believe in it. (Student 003)

> And I think with your arrival (Hauora Māori teaching team) and the energy you've put into it, and you can see that therefore in the responses of the students they value what is being done and the teaching they are receiving, and they're learning. And I probably have the view that the medical school should support wherever the energy and enthusiasm is. (System stakeholder 003)

System stakeholders, Māori health workers, course conveners, and students commented that they were impressed with the enthusiasm and passion of the Hauora Māori teaching team, and identified these as mechanisms for keeping all stakeholders engaged in the Hauora Māori curriculum.

The Hauora Māori teaching team and course conveners identified the need for the Hauora Māori curriculum to be relevant to clinical practice, to focus on outcomes that aligned with addressing health inequities.

> I think they (students) are going to be thinking, ok so how does this connect with working with Māori patients? So all the things related to Māori health and Te Ao Māori need to fit in with clinical practice … otherwise it is a big barrier. I think any future developments need to support a clinical interface, especially for 4th and 5th years. Because they can get theory until the cows come home, but it is not until they sit in front of a Māori patient and their whānau that they begin to understand some of the concepts that we are trying to teach them in clinical practice. (Hauora Māori teaching team 002)

> So the whole thing now opens up, how that Māori patient is going to respond to what the clinician has got to offer. The clinician is making an effort to meet the patient halfway, aren't they? So they are not approaching the Māori patient like here I am I know what you need we will fix you, they're attempting to say kia ora or where are you from, and those interactions. (Māori health worker 001)

> It was good because it combined cultural and clinical competencies, it made it easier to talk to patients, and I came up with different sets of problems and different approaches to problems … that it was easier to deal with that in the medical setting after having been taught about how to do it. (Student 004)

Māori health workers, Māori patients, and system stakeholders pointed out that the curriculum was responsive to concerns about the need for clinicians to demonstrate both cultural and clinical competencies. Students described how the content and learning methods within the Hauora Māori curriculum enhanced their confidence to apply the Hauora Māori curriculum to clinical practice when working with Māori patient(s).

The Hauora Māori teaching team, system stakeholders, Māori health workers, Māori patients, course convenors, and students all saw themselves as teachers within the

Hauora Māori curriculum. These groups shared examples of when the curriculum content aligned with the literature. They also reported community experiences in the health system, exchanged personal/ family experiences with the health system, and had observed institutional and interpersonal racism that impacted on patients/whānau.

> Well, first of all, they have all got to learn to speak to the Māori as a patient, they have got to learn to korero first, medication second, hospital third, like in that order. Not just stick them on medication without knowing what the story is, or sending them to hospital. But if they can korero first and get patients to talk back, it is not a problem. If they feel like they could go on some medication they could go on some medication then, but that would be the last resort, and then the very last resort is being put in the hospital. (Māori patient 003)

> It didn't bother me because I thought well if it is going to improve things for other Māori, it was not much time for me to put into it, to do my bit for Māori health. (Māori patient 004)

> Yeah like I don't know we have had like the old consultant sort of thing that you've had a Māori patient and they've raised the fact that they're a Māori patient, and they might have done something differently. Or they mention that, and it is kind of nice for them to bring it up because we feel like we get the teaching and we are the ones always doing the Māori stuff, and it is not being done in many other places. (Student 005)

Māori patients described that they took the opportunity during interviews to educate students on the Māori world (including tikanga and te reo Māori), and provide 'real life' stories to illustrate enablers and barriers to health care for Māori. Course conveners explained they had a role in advocating for Māori patients, and they could do that by including Hauora Māori content in their courses. Many expressed the need for further professional development in this area. Students discussed the lack of Hauora Māori role models in clinical settings and saw an opportunity to demonstrate Hauora Māori competence to their colleagues and provide a safe clinical environment for Māori patients.

Tukunga iho/outcomes

Tukunga iho translates to capture the concepts of things coming to an end, being a result or an outcome and having a consequence. This theme captures the tukunga iho of the Hauora Māori curriculum that aligned with social accountability. These included transformative practice, advocates for Māori health, and future developments.

Māori patients described how students were putting the Hauora Māori curriculum into practice during patient-student interactions. Māori patients explained that this made them feel more comfortable in clinical settings and confident their experiences were validated. Students illustrated examples of occasions when they had used the Hauora Māori curriculum and how this enabled them to gain clinically relevant information that had changed the Māori patient's diagnosis and/or the management plan. However, some students articulated that because senior clinicians were less familiar with the Hauora Māori curriculum, they did not always feel comfortable to apply their learning from the curriculum in clinical settings.

> Yes absolutely, in recent years I've had the opportunity to welcome and see some of the new RMO's that have come through the system. In the DHB, I often hear some of the senior consultants comment on how much more these new graduates know in terms of the knowledge of Hauora Māori. Things that they never knew when they came through the system. Many of them have picked up things by accident or not at all. So

> the fact that a senior doctor comments that they're impressed with how much newer graduates coming through is very good. But you know there is still some distance to go. Even the students acknowledge that it is great that they have been given some information, but they are always keen for more. I have noticed that and even in little things like an attempt to pronounce names correctly, and an understanding of simple procedures on dealing with whānau, I've noticed a steady improvement, and often what happens though when you notice steady improvement is you get, I guess you get a desire to see more and better. (System stakeholder 001)

> I really enjoyed my interview with her (student) she had a good knowledge of Māori culture and engaged with whakawhānaungatanga. Then I felt so comfortable I opened up to her and shared a traumatic experience I had in the health system, I didn't mean to … but she was so responsive and kind it just happened. She told me she was so grateful I had shared that information with her. She made me feel so comfortable. I would happily assist students like her to learn more about Māori. (Māori patient 005)

The Hauora Māori team, Māori health workers, and Māori system stakeholders stated that they had observed students within clinical settings applying Hauora Māori competencies. They also noted patients who had been involved in past interviews or as community volunteers were coaching health professionals in expected behaviours that aligned with the Hauora Māori curriculum.

Māori patients shared experiences of how they wanted to participate in the Hauora Māori curriculum to advocate for better Māori health outcomes. They felt comfortable in this role, which included declining interviews when tired, or insisting the student or clinician spend more time with them so they could share their concerns. The Hauora Māori teaching team described their primary motivator at UOC was to use medical education as a platform to advocate for Māori health advancement. They also noted the benefits for the medical school in retaining these relationships with the Māori community, including it forming a base for other research and service activities.

> It was at the beginning of this year, actually I ran into one of our final year students, and he told me how four students had challenged a consultant. He said a Māori father had requested his son's appendix be returned to the whānau. The consultant said, 'no, we don't do that here'. But the students said privately to the consultant, actually, that is a cultural thing, and Māori are allowed to request their body parts back. The consultant replied that the students would have to organise the solution if they chose to pursue this action. The students rang pathology and sorted it out. When they went to tell the father, he cried and was really grateful. (Hauora Māori teaching team 003)

> Yeah definitely and especially the use of whakawhanaungatanga (relationship building)—I think that is really good. With my long case last year, it established a really lovely relationship with a lovely woman and the same thing happened this year, and it just gives you a lot more faith in the curriculum when you do see the benefits that it (the Hauora Māori curriculum) does have. (Student 006)

Māori health workers and Māori system stakeholders remained invested in the Hauora Māori curriculum as they identified its overall positive impact in health settings. They reported that graduates of the programme created a safe space for Māori patients and staff, for example by using te reo Māori and demonstrating Hauora Māori competencies. System stakeholders observed the need for the health system as a whole to become more responsive to address Māori health inequities.

Some participants highlighted signposts that could be used to measure social accountability outcomes from the Hauora Māori curriculum. Students commented that they would like to see more integration of the Hauora Māori learning outcomes throughout the UOC curriculum. Students and system stakeholders reported they hoped to decrease Māori health inequities through increasing access to quality care, appropriate prescribing, and an increase in secondary referrals.

> I expect it to be integrated completely by then. Each run would have clinicians telling us and the Hauora Māori teaching team would there, or whoever is there would be a support role. It would just become a common place for us throughout our medical training to have this exposure and be able to practice it. Hopefully, we would get role models as well, like registrars, house surgeons, because that is where a lot of teaching comes from. (Student 007)

> If you can change one clinician's behaviour, and it means that through this the patient can access their health care in a better way, I think this is a huge thing. To have the patient understand more about what is going on with themselves so that you know they can take some control of their health. We are aiming for people who are in control of their health journey; it will be that easy to measure. (Māori health worker 002)

> That is some of the further System stuff that I am hoping, that our two units (Māori health workers and Hauora Māori teaching team) will become quite a strong political voice, making sure that those things happen. (Māori health worker 003)

System stakeholders and course conveners remarked that they expected all graduates of UOC to feel confident to work alongside Māori patients, Māori health workers, and to advocate for equitable health outcomes. System stakeholders and Māori health workers expressed their hopes that the Hauora Māori curriculum would extend to other health professional training programmes and other districts. Māori health workers expressed an ongoing commitment to building the relationship between the medical school and health services, including joint initiatives to maintain Māori health gains. Māori patients noted their expectation to be actively involved in the Hauora Māori curriculum, and their intent to monitor ongoing progress.

Discussion

Using Kaupapa Māori research as a theoretical framework, this study highlighted how the Hauora Māori curriculum at UOC developed socially accountable contexts and mechanisms to achieve measurable outcomes. It identified the need for triangulation among community, medical school, and health service stakeholders in order to effectively put in to place meaningful and sustainable social accountability measures.

The findings describe a dynamic relationship among stakeholders, which demonstrated how their experiences had informed student learning outcomes, curriculum design, and development, and contributed to positive Māori patient and stakeholder experiences in health environments. Stakeholders also monitor the responsivity to Māori community needs and provide overall leadership. The study describes the vital role of Māori leadership in medical schools and health service providers as a mechanism to enable socially accountable relationships to maintain purposeful partnerships (Jones et al. 2019). This model of practice integrates the medical school as part of the community, identifying and advocating for Māori health equity and advancement.

Stakeholders described that clinician knowledge gaps in Hauora Māori content as a barrier to implementation of the Hauora Māori curriculum for both clinicians and students. These knowledge gaps also influenced clinical behaviours that hindered Māori patients accessing quality health care and having positive experiences within the health system. The Hauora Māori curriculum adopted a social advocacy role that does not expect changes in the Māori community; but it expects changes within education and health systems (Freire 1970).

The Hauora Māori curriculum at UOC aligns with the Association for Medical Education Europe (AMEE) Social Accountability Guide to address a community's 'priority health needs', to produce health professionals who can deliver 'quality health care' and who can impact on health systems. (Boelen et al. 2016, p. 1078). The Hauora Māori curriculum contrasts with other documented models of social accountability that position the medical school as the initiator of community engagement, view the community as a physical location for student placements or view the community as a passive host of medical school teaching (Strasser et al. 2015). Some of these models focused more on the students' needs than on the actual relationship with stakeholders or any direct benefit to the community (Ellaway et al. 2016; Reeve et al. 2017).

The Hauora Māori curriculum also aligns with Freire's (1970) ideology that learning from multiple information sources, including the community reinforces power-sharing and challenges power structures (Ross 2015). It works to establish community knowledge and experience as sources that should inform practice, alongside clinical expertise. Our data suggest that the Hauora Māori curriculum has integrated cultural paradigms with biopsychosocial approaches, and it has produced favourable outcomes for all stakeholders. These findings contrast with other models that have solely focussed on patient health behaviours, and excluded social and structural determinants of health, by making health inequities invisible within the curriculum (Ross 2015).

The strengths of this study include gaining multiple perspectives of stakeholders on the UOC Hauora Māori curriculum and its role in addressing Māori health inequities. Although this study explored many aspects of a social accountability framework, it did not examine the UOC engagement in service and research within Māori communities (Boelen et al. 2016). Theoretical saturation was reached for each theme with a cohort of 72 participants. However, we acknowledge that this study only explored one clinical site and, as a case study, may not be generalisable to other sites with indigenous health curriculum. The data reflect a snapshot in time and therefore may not reflect the ongoing dynamic interactions among stakeholders. We described a Hauora Māori curriculum integrating stakeholder perspectives to create a core Hauora Māori curriculum, which was able to gain institutional support. The principles of the Hauora Māori curriculum and its role in addressing indigenous health inequities may act as signposts for other medical schools seeking to design authentic and sustainable models of social accountability.

Conclusion

This study describes how one medical school's Hauora Māori curriculum is attempting to address Māori health inequities, using social accountability measures. Stakeholder engagement highlights the importance of Māori communities advancing a social accountability approach through dynamic and responsive leadership that values each stakeholder's

experience. The Hauora Māori curriculum and its processes can enact real-time stakeholder experiences to inform student-learning outcomes, to inform curriculum design and development, and provide monitoring of the Hauora Māori curriculum. The Hauora Māori curriculum enables the medical school to be part of a socially accountable community that advocates for social justice through Māori health equity.

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Disclosure statement

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