What helps and hinders indigenous student success in higher education health programmes: a qualitative study using the Critical Incident Technique

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Tertiary institutions aim to provide high quality teaching and learning that meet the academic needs for an increasingly diverse student body including indigenous students. Tātou Tātou is a qualitative research project utilising Kaupapa Māori research methodology and the Critical Incident Technique interview method to investigate the teaching and learning practices that help or hinder Māori student success in non-lecture settings within undergraduate health programmes at the University of Auckland. Forty-one interviews were completed from medicine, health sciences, nursing and pharmacy. A total of 1346 critical incidents were identified with 67% helping and 33% hindering Māori student success. Thirteen sub-themes were grouped into three overarching themes representing potential areas of focus for tertiary institutional undergraduate health programme development: Māori student support services, undergraduate programme, and Māori student whanaungatanga. Academic success for indigenous students requires multi-faceted, inclusive, culturally responsive and engaging teaching and learning approaches delivered by educators and student support staff.

Keywords: diversity; health; indigenous; Māori; professional; student learning; success; tertiary; undergraduate

Background

Internationally, tertiary institutions aim to provide high quality teaching and learning that achieves successful academic outcomes for an increasingly diverse student body (Ministry of Education, 2010; Whiteford, Shah, & Nair, 2013). However, universities struggle to achieve equitable outcomes for all students with indigenous students having the highest rates of attrition and lowest rates of participation and success across

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In New Zealand, stark inequities in tertiary educational outcomes exist between Māori (the indigenous peoples of New Zealand) and non-Māori (predominantly European). Māori make up 15.5% of the population (Statistics New Zealand, 2012), yet only 9% of university enrolments (Education Counts, 2012). In 2010, the first-year tertiary student retention rate was 71% for Māori compared with 82% for Europeans (Education Counts, 2013).

Explanations for the disparate success between indigenous and other tertiary students include: differential secondary education outcomes (Wikaire & Ratima, 2011); work/life balance pressures (Young, Stupans, Scutter, & Smith, 2007); financial burden of study; lack of mentoring/role modelling; cultural and social isolation; lack of culturally responsive teaching and learning (Airini et al., 2009; Curtis, Townsend, & Airini, 2012a); and lack of indigenous curricular content (Garvey et al., 2009; Wikaire & Ratima, 2011). In response to these issues, many tertiary institutions provide supplementary academic and pastoral support to indigenous students outside of the formal curriculum to aid success within undergraduate programmes (Airini et al., 2009; Prebble et al., 2004). Examples include: support staff, study resources and opportunities for students to develop supportive peer and professional relationships (Curtis, Wikaire, Stokes, & Reid, 2012b). In New Zealand, there is some evidence that indigenous-specific supplementary support programmes facilitate indigenous student success, improve academic performance (e.g., Grade Point Average) and increase programme completions in general (Ministry of Education, 2009; Prebble et al., 2004; Wilson et al., 2011). However, there has been limited critique of which specific aspects of the interventions hinder (as well as help) indigenous student success (Asmar, Page, & Radloff, 2011; Zepke & Leach, 2005).

The formal teaching and learning context also plays a role in determining indigenous student outcomes (Zepke & Leach, 2007). Although much is known about teaching within lecture settings, it is important to explore indigenous student success within the broad range of non-lecture-based teaching and learning contexts (e.g., tutorials, workshops, laboratory classes, clinical and small group sessions) (Airini et al., 2011; Murray-Garcia & Garcia, 2008). Understanding how these learning contexts help or hinder indigenous undergraduate student success within health professional and clinical contexts has not been explored formally in New Zealand to date.

Undergraduate health programmes at the Faculty of Medical and Health Sciences (FMHS), University of Auckland vary in duration and in terms of their mix of non-clinical and clinical teaching and learning contexts. Students who enrol in the first year of undergraduate health programmes are exposed to a demanding academic environment particularly for those competing for entry into medicine in their second year of study. The FMHS provides comprehensive support services to Māori students through the Māori and Pacific Admission Scheme (MAPAS). Key activities include: targeted admission pathways; provision of additional academic and pastoral support, culturally based student cohort activities and indigenous academic leadership/representation within programme and faculty boards and committees (Curtis & Reid, 2013).

Aim

This research aims to investigate the teaching and learning practices that help or hinder Māori student success in non-lecture settings within the undergraduate programmes of nursing, pharmacy, medicine and health sciences at the University of Auckland.
This study draws on previously defined notions of indigenous ‘success’ that incorporate: academic achievement; accomplishment of personally significant goals; and the development of Māori cultural skills and knowledge in a tertiary setting (Airini et al., 2011). Non-lecture-based ‘teaching and learning’ approaches include curriculum delivery activities involving less than 50 students (Clarke, 1998) and support activities targeted at Māori students.

Research design

Methodology

This research utilised Kaupapa Māori research (KMR) methodology. In the context of this study, KMR represents a commitment to: Māori/indigenous research leadership and workforce development; ensuring research outputs have positive benefits for Māori/indigenous communities; utilisation of a non-victim blaming, non-deficit approach; proceeding in a manner appropriate to the cultural contexts concerned; and ensuring that members of the research team acknowledge cultural norms and work in culturally safe ways (Smith, 1999; Smith & Reid, 2000; Walker, Eketone, & Gibbs, 2006).

Understanding the role the education system plays in enhancing or limiting student success and using that understanding to inspire practical and effective changes to tertiary teaching practices is an expected outcome of this research. This is consistent with KMR as it encompasses a critical analysis of structures that reproduce and maintain disparities (Smith, 1999).

Methods

Tātou Tātou is a qualitative study using the Critical Incident Technique (CIT) in semi-structured interviews with Māori students (Flanagan, 1954).

Recruitment

Eligible Māori students (i.e., those who were enrolled in or had recently graduated from undergraduate FMHS health professional programmes) were identified via: university administrative databases (using Student Services Online ethnicity), general advertisements, and email and invited to participate in the study. Overall, 95 currently enrolled Māori students (56 medicine, 21 health sciences, 13 nursing and five pharmacy) were eligible to participate across the study recruitment period (October 2009 to July 2010). Of these, 38 accepted the invitation to participate in a face-to-face or telephone interview. Given the low number of Māori students enrolled within the pharmacy and nursing programmes, three recent graduates from these programmes were recruited (two and one, respectively).

Recruitment was conducted by a research assistant who was independent of MAPAS or FMHS academic programmes. Students were assured that participation in the study would have no effect on academic outcomes, relationships with university staff, or the provision of MAPAS support. Participant ethnicity was identified using the New Zealand Census 2006 ethnicity question (Statistics New Zealand, 2009).

Ethics approval was obtained from the University of Auckland Human Participant Ethics Committee (2009/358).
Critical Incident Technique

Interviews were conducted by Māori interviewers trained in using the CIT (Butterfield, Borgen, Amundson, & Maglio, 2012; Flanagan, 1954). CIT is an established form of narrative inquiry that aims to reveal the lived experience of participants by asking them to describe important events and their outcomes (in this case related to their learning) (Victoroff & Hogan, 2006). The CIT methods used in this study were informed by previous work undertaken within FMHS (Airini et al., 2011; Curtis et al., 2012a).

Participants were repeatedly asked ‘Can you describe a time when the teaching and learning approach used in your undergraduate programme has helped or hindered your success as a student?’ If required, interviewers prompted participants to consider this question within teaching and learning contexts including: non-clinical; clinical; and academic and pastoral support activities provided by MAPAS. Interviews lasted between 40 and 60 minutes and were voluntary and confidential. All interviews were recorded; transcribed verbatim; then de-identified by the research assistant and forwarded to the research team for analysis.

Analysis

Māori and non-Māori research team members reviewed transcripts to identify critical incidents (defined as a story that made a significant contribution to an activity or phenomenon); identifiable by a trigger, an action and an outcome (Flanagan, 1954). Each incident was classified as either ‘helping’ or ‘hindering’ student success. Project members debated and discussed their interpretations of the student narratives with each other via face-to-face meetings. If consensus on the interpretation of the narrative could not be reached a pre-agreed ‘give way’ rule was applied. This rule acknowledges everyone’s contribution; however, the final decision on issues involving cultural or programme interpretation would pass to a Māori or programme project team member, respectively, for adjudication.

Each critical incident was assigned a sub-theme providing detail on the types of issues being discussed in any given incident. The sub-themes were then grouped into three overarching themes representing areas of focus for potential institutional development. There was no minimum number of incidents required to form a theme or sub-theme. The number of incidents in a given sub-theme or theme provided a high level indication of the intensity of student concerns in non-lecture contexts; however the richness of a given incident (regardless of frequency) was also taken into consideration. The themes represent combined findings across all programmes for two reasons: (1) to reduce potential for individual identification given the small number of participants within pharmacy and nursing and (2) incident content was similar across the programmes during preliminary analysis. The results were validated by two academic staff unrelated to the research project (using up to 20 incident examples requiring >95% congruence).

Results

Forty-one interviews were completed with students from medicine (n = 17), health sciences (n = 14), nursing (n = 7) and pharmacy (n = 3) (Table 1).

A total of 1346 critical incidents were identified, with 67% helping and 33% hindering Māori student success (Table 2). Three identified themes included: Māori student support services; undergraduate programme; and Māori student whanaungatanga.2
Maori student support services

The majority of student stories (789 incidents, 59%) were classified as relating to Maori student support services with most of these incidents being helpful (69%) rather than hindering (31%). Stories in this theme related to Maori-specific academic and pastoral support services including the sub-themes of: MAPAS tutorials, resources, academic transitioning, MAPAS staff and Maori academic staff, and Maori mentors and role models.

Providing additional tutorials for Maori students (over and above any offered to all students) created a supportive space in which indigenous students learned. These

### Table 1. Recruitment summary.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Medicine</th>
<th>Health sciences</th>
<th>Nursing</th>
<th>Pharmacy</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolment status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current students</td>
<td>17</td>
<td>14</td>
<td>6</td>
<td>1</td>
<td>38</td>
</tr>
<tr>
<td>Recent graduates</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Gender</td>
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<tr>
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<td>7</td>
<td>3</td>
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<td>2</td>
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</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>11</td>
<td>7</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>Clinical learning experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>8</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>14</td>
<td>3</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>14</td>
<td>7</td>
<td>3</td>
<td>41</td>
</tr>
</tbody>
</table>

### Table 2. Themed results.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-theme</th>
<th>Help # (%)</th>
<th>Hinder # (%)</th>
<th>Total (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maori student support services</td>
<td>MAPAS tutorials</td>
<td>179(73)</td>
<td>66(27)</td>
<td>245</td>
</tr>
<tr>
<td></td>
<td>Resources</td>
<td>126(67)</td>
<td>63(33)</td>
<td>189</td>
</tr>
<tr>
<td></td>
<td>Academic transitioning</td>
<td>84(53)</td>
<td>75(47)</td>
<td>159</td>
</tr>
<tr>
<td></td>
<td>MAPAS/Maori academic staff</td>
<td>102(74)</td>
<td>35(26)</td>
<td>137</td>
</tr>
<tr>
<td></td>
<td>Maori mentors and role models</td>
<td>50(85)</td>
<td>9(15)</td>
<td>59</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>541(69)</td>
<td>248(31)</td>
<td>789</td>
</tr>
<tr>
<td>Undergraduate programme</td>
<td>Racism/stigma towards Maori</td>
<td>23(27)</td>
<td>61(73)</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>Programme organisation</td>
<td>30(40)</td>
<td>45(60)</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Teaching staff characteristics</td>
<td>46(61)</td>
<td>30(39)</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>Linking theory to practice</td>
<td>61(92)</td>
<td>5(8)</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Programme incorporation of Maori cultural values</td>
<td>28(56)</td>
<td>22(44)</td>
<td>50</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>198(53)</td>
<td>177(47)</td>
<td>375</td>
</tr>
<tr>
<td>Maori student whanaungatanga</td>
<td>Supporting whakawhanaungatanga (see note 2)</td>
<td>132(87)</td>
<td>19(13)</td>
<td>151</td>
</tr>
<tr>
<td></td>
<td>Group learning</td>
<td>27(87)</td>
<td>4(13)</td>
<td>31</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>159(87)</td>
<td>23(13)</td>
<td>182</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>898(67)</td>
<td>448(33)</td>
<td>1346</td>
</tr>
</tbody>
</table>
non-lecture settings were described by students as safe because they could: ask ‘stupid’ questions without ridicule; connect with other ‘like’ students with similar teaching and learning needs; and access tutors who explained course content in a way that was understandable by the students:

Help: Trigger: MAPAS tutorials. Action: being with other MAPAS students, you formed quite good relationships with each other over the years and it was a safe environment for us because you have to ask really stupid questions. Because I think in mainstream tutorials that were with the rest of the class there’s this [avoidance to ask questions]. Particularly MAPAS students, get quite shy about asking questions because they always think that they’re the dumb questions. And I’m like that, I don’t ask it, so I don’t know. Outcome: these tutorials that are just MAPAS students organised by MAPAS, it’s a safe environment to be able to ask those questions and get the answers.

MAPAS tutorials were facilitated by senior peers who were selected primarily on the basis of their prior academic performance within a course. MAPAS tutors had limited access to specific tutor training and were expected to develop their own tutorial approach. Whilst students regarded MAPAS tutorials as helpful to their learning, this was heavily reliant on the quality of the tutoring provided; the teaching and learning skills utilised by the tutors; and the depth and breadth of the tutor’s content knowledge. At times, these issues hindered learning within the MAPAS tutorial context:

Hinder: Trigger: the MAPAS tutorials. Action: the people [tutors] that were chosen because they were A+ students … they were the year above us … getting paid to tutor us. Outcome: but some of them weren’t actually very good at tutoring, they were really smart and they could do the work but they couldn’t teach it very well.

Students discussed other components of Māori student support as being helpful to their overall success within their programmes. In particular, provision of a MAPAS specific study space was important in ensuring that students felt more relaxed and able to ‘be themselves’ more than anywhere else on campus:

Help: Trigger: MAPAS House [study space]. Action: there are resources there and computers and that’s really helpful just to have your own space to go and work … where you know can go and get a computer and just really relax. Outcome: I feel like I can relax there more than any other place in the med school so that’s really helpful to me. I feel like I belong more at the MAPAS House more than anywhere else. I can just be myself.

Similarly, students noted the importance of MAPAS support staff (as someone to go to about personal life and study issues), exposure to Māori academic role models, and the helpful nature of the broad support provided by the MAPAS programme including: access to computers, printers, and food within the MAPAS study space. Student support services provided guidance for students experiencing transitioning difficulties into and within tertiary study. Māori staff who showed empathy were identified as being helpful:

Help: Trigger: successful Māori and Pacific academics. Action: they know … it’s a different experience being at university for Māori than it is for non-Māori. Outcome: they understand the issues you have when you’re studying a bit better than someone who is not Māori.
Undergraduate programme

The second largest grouping of student stories was located within the theme of the undergraduate programme (375 incidents, 28%) and included similar proportions of ‘helpful’ and ‘hindering’ incidents (53% versus 47%, respectively). This theme represents teaching and learning experiences associated with the sub-themes of: racism/stigma towards Māori, teaching staff characteristics, programme organisation, linking theory to practice, programme incorporation of Māori cultural values, and competitive first year of study (associated with the high level of academic performance required for selection into the medical programme).

Māori students shared stories of clinical educators who were perceived to be positive, encouraging and focused on student learning needs that were associated with helping student success:

Help: Trigger: [Medical Registrar] taught about 12 of us just in a small group in our own room. Action: he had a really good demeanour and he was really easy to get along with, and it was obvious that he really wanted to help us learn. So, it didn’t just feel like any other tutorial … felt like he was really doing us a favour by being as enthusiastic as he was. Outcome: it just really helped our interest … if I know the answer to a question I don’t necessarily say it. I just think about it to myself, but he was such a good registrar that I just felt really comfortable [to talk].

Provision of a well-organised educational programme was important. Teaching and learning contexts that encourage students to link theoretical learning to ‘real life’ practice-based learning were reported as helping Māori student success. Clarity was provided through these particular non-lecture teaching contexts:

Help: Trigger: The labs were helpful. Action: so like when we did the labs we would do the practical part and we would put the solutions together, say, and come up with our answer and then we would have to go through and answer a whole lot of questions about what we had just done and it was a real like, sort of a link, the practical stuff we have just done with the stuff we had learnt in lectures. Outcome: and it just really clarified everything. Like, it brought everything together.

Māori cultural values include the notions of ‘tapu’ and ‘noa’ (‘restricted’ and ‘un-restricted’), with the deceased representing one of the highest levels of tapu. Health professional students who engaged in the dissection of cadavers had to navigate their way through the requirements of their training and the requirements of Māori cultural practice. One student noted how they specifically avoided cadaver dissection, highlighting the need for programmes to acknowledge and address these concerns for Māori students. The introduced practice of whakanoa (Reid et al., 2012), the use of Māori cultural rituals that remove restrictions and recognise the sacredness of the body of the deceased, prior to students first entering the dissection room, helped the student to feel comfortable and engage in dissection despite their cultural concerns:

Help: Trigger: Work with the human tissue in cadavers − we had a whakanoa. Action: whereas before that we had real trouble with it and how to make it normal with the beliefs that Māori had with the bodies, so it was a real unusual position to be in, but you just have to make it fit so you can learn. Outcome: [the whakanoa] was really good for the Māori students I think, because it considered the spirituality of Māori and felt like you could actually get on and do it.
In contrast, Māori students also reported hindering incidents where teaching staff were perceived to be unapproachable; using teaching methods that increased stress for the student; or made them concerned about ridicule:

**Hinder**: **Trigger**: clinical tutorials in the hospital. **Action**: I’d avoid those tutorials because if I knew that it was a certain person …, lecturer, [medical] consultant that … just liked to grill students … for the sake of grilling … everyone would just avoid them. I know I did, I didn’t go to some of the clinical tutorials … it’s kind of like you just get over yourself and go but then I wouldn’t have learnt anything anyway because I would have been too worried about getting picked out then [being made] a fool. **Outcome**: [so I would] miss out on that learning opportunity.

Māori students shared stories of hindering experiences resulting from exposure to racism and stigma towards Māori, both from their peers and their teachers, in multiple settings. Examples included negative and hostile attitudes towards them as MAPAS/admission quota students (seen to be taking ‘non-Maori’ places within the highly contested medical programme) and feeling the need to defend Māori content within the curriculum to non-Māori peers:

**Hinder**: **Trigger**: I was on my … GP run [clinical placement] and I had a really racist doctor … really, really racist and he was so mean and horrible. **Action**: the most horrible experience I’ve ever had. Not only was he racist to me when he found out that I was Māori, he discriminated against me … his daughter was trying to apply for medicine at the time and I think maybe that had influenced it but I’m not sure. And he was mean to Māori patients as well, he would say the worst things, I’m not even going to say what he would say but it was horrible. **Outcome**: I was thinking I was going to quit medicine after being there.

**Hinder**: **Trigger**: [Mainstream student’s resistance to Māori Health Week]. Action: a lot of mainstream students just resent that week. Like, they are just anti it. They don’t want to go; they just don’t even want to participate and that kind of stuff. **Outcome**: this is what the mainstream students complain about to us. I didn’t feel safe and we always felt like, well, not ‘not safe’ in that ‘oh someone was gonna hurt us’ but just like, we always, we felt like we were gonna have to defend ourselves for the whole week.

Māori students reported issues associated with a curriculum often devoid of Māori cultural content that is further reinforced by clinical educator behaviour within teaching and learning settings. The following student discusses the inability of his/her clinical educator to formally assess the Hauora Māori Domain despite this being a core component of the medical curriculum:

**Hinder**: **Trigger**: the doctor has been quite patronising in that way of palming off all her Māori patients to me. **Action**: There is an assessment of your Hauora [Māori] understanding and an assessment of your clinical understanding, they don’t worry too much about the [Hauora] Māori part, they just tick it or sign it off. Even if they haven’t really tested your knowledge on that. **Outcome**: But I just think there is a lack of understanding and the clinical teachers that they choose for us for the Māori domain – they just put it in the ‘too hard basket’ and you know they don’t take it seriously.

**Māori student whanaungatanga**

Although the third theme of Māori Student Whanaungatanga represents a smaller proportion of stories (182 incidents, 14%); the narratives were predominantly ‘helpful’ rather than ‘hindering’ (87% versus 13%, respectively) (Table 2). This
theme represents those activities that support students to develop helpful social, academic and professional networks and includes the sub-themes of supporting whakawhanaungatanga and group learning:

*Help: Trigger:* our [MAPAS cohort] meetings kind of to catch up. *Action:* because there’s a lot of times where you’re just like ‘oh, my gosh I think I’m going to fail this subject’, ‘this is just so hard, I’m studying every night and I still don’t feel like I know anything’ and then you come to a meeting with like all your friends from MAPAS and then they’re like ‘oh, well, yeah I hate it too, it’s really hard too, I want to quit too’ [laughs] but you know you won’t because we’re all here together doing it. That was really good having, kind of, those meetings and yeah, I was lucky to have it as a MAPAS [student]. *Outcome:* It’s a whole group of other people, so that kind of like helped me learning by keeping me motivated.

Facilitation of student relationships via group work helped expose students to different learning styles that helped their own learning:

*Help: Trigger:* In our fourth year the pharmacy school kind of split us all up. *Action:* we were assigned to groups that we would do tutorials and workshops and labs together … so because they split us up, we just didn’t stick with our same teams so that way it was good because we, like, … everybody learns different and stuff, so being split up like that you’re exposed to other students and see how they learn and so you can kind of think ‘Oh’, you know like ‘That’s the way they’re learning, I could benefit from learning something that particular way as well’. *Outcome:* so being exposed to other students and their ways of learning helps to, like, make my learning a bit easier as well.

**Discussion**

This study identified three overarching themes (*Māori* student support services, undergraduate programme, *Māori* student whanaungatanga) associated with teaching and learning practices that helped or hindered indigenous student success within tertiary health study.

**Māori student support services**

This theme relates to *Māori* student support services with the provision of MAPAS tutorials (a form of supplemental instruction) being predominantly helpful. *Māori* participants appreciated the small-group teaching and learning environment where there was active questioning facilitated by peer tutors. This finding is supported by Rath, Peterfreund, Xenos, Bayliss, and Carnal (2007) who explain that supplemental instruction classes present ‘cooperative learning environments where students participate in learning activities that complement course material, focusing on student misconceptions and difficulties, construction of scaffolded knowledge base, applications involving problem solving, and articulation of constructs with peers’ (p. 203). Providing indigenous-targeted tutorials facilitates a cooperative learning environment where indigenous students may feel connected to their indigenous peers within a cultural framework. *Māori* students who feel a greater sense of belonging when their culture is reflected in the learning environment around them have improved academic outcomes (Alton-Lee, 2003; Bishop, 2010).

Whilst the provision of MAPAS tutorials was identified as being helpful, these findings provide insight into the importance of selection, training and on-going teaching
support for peer tutors employed to provide indigenous-specific tutorials. Educators should have a high level of content knowledge and teaching skills that can facilitate indigenous student learning (Rath et al., 2007). Tutorials must also be of high quality in terms of topic content, teaching delivery style and cultural appropriateness. Professional development for peer tutors employed to deliver supplementary tutorials to indigenous students is, therefore, paramount (Gorinski & Abernathy, 2007).

Our findings highlight the helpful impact of student support services that provide indigenous-specific study and congregational space, additional study resources (e.g., printers, computers) and dedicated support staff available to intervene for both pastoral and academic issues. This has been noted by Prebble and colleagues (2004) who acknowledge that the institution can ‘influence the integration, retention and course completion rates of their students by providing comprehensive and well-designed support services’ (p. 11). Our student narratives foregrounded notions of safety associated with an indigenous space where they could ‘relax’ and ‘belong’. As noted by Morunga (2009), ‘the experience of Māori students in the tertiary environment has often been one of alienation and isolation. They are encountering Western paradigms and dynamics that oppose their Māori culture’ (p. 4). Given this context, the provision of a ‘safe haven’ for indigenous students where Māori culture is normalised becomes helpful to indigenous student success.

However, it is arguable that the creation of isolated ‘safe havens’ for Māori students within the faculty unintentionally serves to maintain a tertiary environment that predominantly reflects non-Māori realities. In this context, a non-Māori worldview is the ‘norm’ and a Māori worldview is side-lined to the margins of ‘normal’ academic operations (Bishop, 2010). This framing may be impacting on the transitioning challenges experienced by Māori students who need to adapt to a new tertiary context with the additional interplay of culture alienation (Madjar, McKinley, Deynzer, & van der Merwe, 2010b; Morunga, 2009). Zepke and Leach (2007) argue for a tertiary environment that incorporates both integration (where learners adapt to institutional pedagogical norms) and adaptation (where institutions adapt to the diverse nature of students) in order to improve student outcomes. The provision of Māori academic leadership was identified by the students as being helpful to their success (via exposure to positive indigenous role-modelling) and may also provide a means by which the institution can better adapt to meet indigenous student needs (Greenwood & Te Aika, 2008).

**Undergraduate programme**

This theme relates to helpful and hindering incidents associated with teaching and learning delivered in the undergraduate programme.

Indigenous students were helped by programme educators who were perceived as being student-focused and encouraging. As noted by Gorinski and Abernathy (2007), ‘the establishment of positive, reciprocal relationships between students and teachers is fundamental for students to develop self-efficacy and subsequent success’ (p. 238). In addition, the provision of opportunities for students to link theory to practice including small group activities, laboratories and clinical teaching settings were identified as being helpful to Māori student success by providing hands-on experience leading to increased clarity of learning. These findings reiterate what is known from existing research for tertiary students in general (Madjar et al., 2010a), however, it is important to confirm that these conclusions can be generalised to indigenous students in health professional programmes.
Our findings document the value of incorporating Māori cultural values within core teaching and learning involving anatomy lessons and cadaver dissection. The use of indigenous processes in medical education (for all students) helped Māori students transition into the study of human anatomy by assisting negotiation of both programme and cultural expectations, whilst normalising Māori cultural practice within a tertiary context. This is an example where the programme has adapted to student diversity resulting in positive experiences for indigenous student learning (Zepke & Leach, 2007).

Undergraduate programme factors that hindered Māori student success included teaching staff who were: unapproachable; used teaching methods that increased student stress (e.g., interrogation at the bedside); or demonstrated prejudice towards Māori in general. Similar findings were found for indigenous medical students in Australia, who reported ‘being affected by discrimination directed both at an individual student and at indigenous people as a group’ (Garvey et al., 2009). Tertiary institutions have an important role to play in overcoming these issues by: (1) developing a curriculum that provides anti-racism education and explores white privilege (Borell, Gregory, McCreanor, & Jensen, 2009) and (2) enabling tertiary educators (clinical and non-clinical) to teach in culturally intelligent and responsive ways.

This is important given that the students reported concerns about educators who lack the skills to formally assess student ability to apply Māori health principles in clinical practice, which can be interpreted as a devaluing of Māori curriculum content (Wikaire & Ratima, 2011). Similarly, exposure to educators who demonstrate hostile attitudes or beliefs about Māori culture and society further undermines a curriculum attempting to do the opposite (Jones et al., 2010). Hafferty (1998) notes that not all of what is taught in medical training is captured in course guides or curriculum plans. Rather, a great deal of learning occurs outside of the classroom representing an informal curriculum operating in a predominantly ad-hoc manner. The hidden curriculum or ‘the set of influences that function at the level of organisational structure and culture’ (Ewen, Mazel, & Knoche, 2012, p. 201) may also play a role in creating and maintaining an environment that employs or fails to develop teaching staff who are able to assess the Hauora Māori Domain (Ewen et al., 2012). This is a particular challenge for health faculties given their reliance on clinical educators who are not university employees and often lack formal training in educational techniques yet are involved in teaching of students in clinical settings (Jaye, Egan, Smith-Han, & Thompson-Fawcett, 2009; Krueger et al., 2004).

Māori student whanaungatanga

This theme relates to opportunities that encourage Māori student cohesiveness.

Our findings indicate that indigenous students benefit from activities that foster a sense of family and kinship among students and their peers. Culturally appropriate cohort bonding activities (e.g., MAPAS cohort meetings) within a tertiary environment facilitate the use of positive cultural practices and assists the creation of a sense of belonging for indigenous students (Ministry of Education, 2009). Our findings are consistent with Prebble and colleagues (2004) who note that student outcomes are likely to be enhanced when tertiary institutions provide and continue to fund opportunities for students to establish social networks outside of formal academic contact.
Strengths and limitations

The use of KMR methodology acknowledges Māori as the indigenous peoples of New Zealand; centralises Māori world views; and in this study has created new approaches to applying KMR that foster mutually respectful relationships between Māori and non-Māori researchers (Smith, 1999). The use of the CIT provides a unique way to capture the Māori student voice to a depth not usually available from quantitative surveys (Victoroff & Hogan, 2006). Given that our findings are consistent with research from other disciplines and institutions, our results may be generalisable to broader tertiary contexts involving indigenous students (Prebble et al., 2004). Exploration of Māori student success in clinical learning environments has been largely unexplored and this research now extends the available literature. The small number of pharmacy and nursing students included in this study reflects the small Māori cohort size in these programmes. This limited our ability to identify programme differences. However, we found similar themes and sub-themes across all four professional programmes. This research does not directly compare student experiences with academic performance data. Additional research is required to explore this association further.

Conclusion

Exploring success from the perspective of the indigenous student reinforces the need for multi-faceted, inclusive, culturally responsive and engaging teaching and learning approaches. Tertiary institutions can both help and hinder indigenous student success within a health professional training setting. Our findings highlight the importance of these institutions maintaining indigenous student support programmes that: deliver high quality academic and pastoral support; provide a ‘safe haven’ for the indigenous student operating within a culturally and socially alienating environment; and foster indigenous student cohesiveness within a cultural context. In addition, tertiary institutions need to: develop a health professional curriculum that is culturally responsive; minimise clinical and non-clinical educators who demonstrate discrimination towards indigenous culture and society; and address the under-representation of indigenous staff in both academic and professional positions.

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Notes

1. Tātou Tātou focuses on Māori students only as stipulated by the Ako Aotearoa funding stream.
3. Māori Health Week is a four-day experiential learning exercise with students assigned to interprofessional groups made up of a mixture of medical, nursing and pharmacy students. The groups address health issues where Māori are particularly disadvantaged.

4. The Hauora Māori domain requires students to develop a critical understanding of the social, cultural, political, economic and environmental determinants impacting on Māori health.

References


Borell, B., Gregory, A., McCreanor, T., & Jensen, V. (2009). ‘It’s hard at the top but it’s a whole lot easier than being at the bottom’. The role of privilege in understanding disparities in Aotearoa/New Zealand. Race/Ethnicity: Multidisciplinary Global Perspectives, 3(1), 29–50.


