

MĀORI PARTICIPATION IN THE PHYSIOTHERAPY WORKFORCE¹

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ABSTRACT

Aims: This research aims to identify barriers and facilitators for Māori participation and retention in the physiotherapy workforce to inform evidence-based policy and intervention to strengthen the Māori physiotherapy workforce.

Methods: A kaupapa Māori research approach was taken. Ten stakeholders participated in in-depth key informant interviews using a structured questionnaire. Thematic analysis was carried out within a kaupapa Māori approach.

Results: Māori face significant barriers to participation in the physiotherapy workforce at the systems, organizational, and individual levels. Some interventions have been established to address disparities and facilitate Māori success in physiotherapy education, recruitment, and retention in the physiotherapy workforce. However, existing interventions are not comprehensive and are limited in scope.

Conclusion: A comprehensive approach to Māori physiotherapy workforce development is required that draws on learnings from the experiences of other disciplines and fields, such as medicine and mental health. Account must be taken of the broader determinants of Māori physiotherapy workforce participation, for example, social, economic, political, and cultural factors, and should address individual, organizational, and structural level barriers.

Key Words: Physiotherapy, Māori, Health, Workforce.

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INTRODUCTION

WORKFORCE PROFILE

Māori make up around 15% of the New Zealand population (Ministry of Health, 2007), yet comprise only 5% (n=3211) of the regulated health workforce (Statistics New Zealand, 2002). Māori are underrepresented across almost all health professions (Ministry of Health, 2000) and comprise only approximately 3.8% of physiotherapists (New Zealand Health Information Service, 2007). Despite increased Māori tertiary education enrolments overall, Māori participation in health sciences remains low (Ratima et al., 2008). The available data demonstrate Māori underrepresentation as physiotherapy students (Auckland University of Technology, 2004). However, despite ethnic data collection at enrolment there is poor reporting of Māori student enrolment and success in the Bachelor of Health Science (BHSc) (physiotherapy) and achievement levels of Māori physiotherapy students are inconsistent when compared to their non-Māori peers (K. Haswell, personal communication, 2005). Māori underrepresentation in the physiotherapy workforce is of particular concern given that Māori have disproportionately high health need (Hodges and MacDonald, 2000), and have expressed preferences for Māori practitioners (Durie, 2001). International evidence indicates that ethnic concordance between health care professionals and their patients leads to improved health outcomes for patients (Cooper and Powe, 2004; LaVeist et al., 2003; Stevens et al., 2005). The lack of cultural concordance between Māori patients and predominantly non-Māori health providers suggests that a key factor in improving outcomes for Māori is to strengthen the Māori health workforce and develop the cultural competence of health care providers (Jansen and Sorrensen, 2002). Further, there is evidence of wide health and treatment disparities, and it should be noted that disparities in health may in part be due to failure of health services to provide culturally appropriate treatments (Robson and Harris, 2007).

WORKFORCE DEVELOPMENT — A PRIORITY AREA

Both Māori and the government have prioritized the strengthening of the Māori health and disability workforce (MHDW) by addressing Māori underrepresentation. This is reflected in statements from Māori health hui (The University of Auckland and Kia Ora Hauora, 2011) and government health and education sector strategic plans (Ministry of Education, 2009; Ministry of Health, 2006).

Raranga Tupuake, the Māori Health Workforce Development Plan 2006 facilitates a coordinated approach to the stark underrepresentation of Māori within the New Zealand health and disability workforce. This 10–15 year strategic framework for Māori health and disability workforce development, including physiotherapy, identifies three goals: to increase the number of Māori in the health and disability workforce, to expand the skill base of the workforce, and to enable equitable access for Māori to training opportunities. Specific tasks identified in the plan include examining barriers and influences to Māori participation and retention in the health and disability workforce, work that was carried out as a major research project “Rauringa Raupa — Recruitment and retention of Māori in the health and disability workforce” (Ministry of Health, 2006; Ratima et al., 2008). While that project was of high relevance to Māori participation in the physiotherapy workforce, it did not specifically focus on issues for physiotherapy workforce retention and recruitment.

The Physiotherapy Board of New Zealand governs the practice of physiotherapy in New Zealand (The Physiotherapy Board of New Zealand, 1999). In accordance with the Health Practitioners Competence Assurance Act 2003 (HPCA Act) (<http://www.moh.govt.nz/hpca>), the Board reviews and maintains the competence of physiotherapists, setting standards of cultural competence as well as clinical practice and ethical conduct (Ministry of Health, 2003a). Physiotherapists must meet the nine competencies set out in the Board's competency document, *Physiotherapy Competencies: For Physiotherapy Practice in New Zealand* (The Physiotherapy Board of New Zealand, 2009). However, the approach taken by the Board has traditionally been to subsume cultural competency within broader categories.² At the second level, five general learning objectives align to the concept of cultural competence. These are concerned with the Treaty of Waitangi (an agreement between Māori and the Crown which is the founding document of New Zealand), recognizing cultural and linguistic diversity and perspectives, applying education, and being responsive to the health needs of all cultures and peoples within New Zealand. At the third level, indicators relating to the four cornerstones of Māori health (spiritual, physical, mental, whānau) and respecting cultural beliefs and differences (The Physiotherapy Board of New Zealand, 2009) are presented.

2. Although a relatively new (2011) separate cultural competence position statement is present on the Boards' website (The Physiotherapy Board of New Zealand, 2011), the implications of this statement within the physiotherapy competencies are not substantial and there are no actual competencies that are specific to cultural competence.

Taeora Tinana (the Māori Physiotherapy professional body) is the Māori partner of the New Zealand Society of Physiotherapists (NZSP) and represents Māori physiotherapists and students. Taeora Tinana aims to develop a Māori identity within the physiotherapy profession to actively increase, retain, and support Māori in tertiary education, and within the health workforce, and to promote strategies that enable the NZSP to integrate Treaty of Waitangi responsiveness into its activities (Taeora Tinana, 2011).

CONCEPTUALIZING MĀORI PARTICIPATION IN THE PHYSIOTHERAPY WORKFORCE

Participation in the MHDW is conceptualized as a complex and multilevel process involving entry into and through health education programs and the professional workforce (Ratima et al., 2008).³ Conceptualization of influencing factors allows for a more comprehensive understanding of issues. It is concerned with the quality of the process, education and workforce settings, and the outcomes (e.g., student success, Māori retention in the workforce, and the roles and levels of Māori workforce participation). A range of factors influencing Māori participation in the MHDW generally have been identified in the literature and can be understood at the systems, organizational, and individual levels (Ratima et al., 2008).

System level factors

These are related to how health and education systems affect Māori participation in the MHDW and include: primary, secondary, and tertiary education systems; access to quality career information; Māori presence and health sector career opportunities; workforce entry criteria; formal Māori support mechanisms; health sector funding mechanisms; and opportunities in other sectors (Cormack et al., 2005; Ratima et al., 2008).

Organisational factors

These relate to specific health and education institutions such as physiotherapy institutions and the ways in which central stakeholders operate. As an example, this could include the ability of physiotherapy education and other key institutions to identify, acknowledge, understand, and address the distinctive needs of Māori. Organizational recruitment factors identified in the literature were: institutional commitment of tertiary education providers; study workload; length of courses; formal

3. The system, organizational, person conceptualization model draws on work around health service access issues (Cormack et al., 2005).

support programs; a culturally safe and reinforcing working environment; support for transition into the workforce; and opportunities to work in Māori settings (Ratima et al., 2008).

Individual factors

These operate at the level of the person and relate to the individual Māori student or physiotherapist, including socioeconomic status, knowledge, attitudes, beliefs, and preferences. Factors influencing Māori participation in the MHDW include: a personal desire to contribute to Māori development and make a difference to Māori health; to work with Māori people, hapū and iwi; the perceived mana or prestige of health professions; and, to help address the underperformance of the health system for Māori. Whānau commitments, the high cost of tertiary education, student loans, and the expectations of Māori communities have been identified as barriers to Māori participation in the MHDW (Health Workforce Advisory Committee, 2003; 2006; Ratima et al., 2008).

METHODS

This is a kaupapa Māori research project (Cunningham, 1998; International Research Institute for Maori and Indigenous Education and Te Ropu Rangahau Hauora a Eru Pomare, 2000; Smith, 1999). The research was led and carried out by Māori and was based in a Māori Health Research Centre. Purposive sampling was employed (Patton, 2002) and involved the selection of 10 participants considered to be rich sources of information who would address the research aims. Participants were required to meet one or more of the following criteria: held key positions at physiotherapy training institutions; had expertise in physiotherapy and Māori health; had recent experience as a Māori physiotherapy student or physiotherapist; had expertise in Māori student support; and/or, were current members of the Physiotherapy Board of New Zealand, New Zealand Society of Physiotherapists, Taeora Tinana, and/or the Health Workforce Advisory Committee. In-depth interviews were carried out using a semistructured questionnaire focusing on Māori specific issues. The questionnaire covered the following issues: Māori recruitment in physiotherapy education and into the physiotherapy workforce; retention of qualified Māori physiotherapists in the MHDW; and Māori recognition and development within physiotherapy education and the physiotherapy workforce. Each issue was explored in terms of barriers and facilitators, current or planned strategies or interventions, and

recommended initiatives. All interviewing and analysis was carried out by Māori researchers with Māori cultural competencies. Participants took part in face-to-face or telephone interviews of up to one hour duration, or self-completed the questionnaire. Consistent with a kaupapa Māori approach, a thematic Māori analysis was carried out by two researchers: Māori issues and concerns were prioritized, known Māori frameworks like Te Whare Tapa Wha (a Māori model of health) (Durie, 1998) were drawn on, and a nondeficit approach was taken. Research protocols were developed to ensure consistency with Māori preferences. Ethical consent for the study was obtained from the AUT University Ethics Committee (AUTC). Informed consent was obtained from all participants and participants' rights were protected.

RESULTS

SYSTEM LEVEL FACTORS

Primary and secondary school education system responsiveness to Māori

Most participants agreed that low levels of Māori participation, retention, and success in secondary education, particularly in science subjects, was a major barrier to obtaining the relevant prerequisites for entry into health science and specifically physiotherapy programs. This was attributed to: inadequate secondary education system responsiveness to Māori generally; lack of encouragement for Māori to pursue study of the relevant science subjects; and poor engagement of health career information and/or requirements for tertiary study.

Failure of the education system to adequately engage Māori in primary and tertiary education, and respond to Māori needs.

Māori don't see physio [therapy] as a Māori profession.

Participants felt that mechanisms to increase Māori community and parent involvement in Māori student education, and improved training for secondary teachers in Māori student cultural safety would encourage Māori retention in secondary schools and science subjects. More publicized and improved career planning through Māori specific media; using a "Māori face" to promote and market in a "Māori way"; and visits by Māori physiotherapists to kura kaupapa (Māori-language immersion schools where the philosophy and practice is based on Māori values) and secondary schools with high Māori enrolments; and Māori hui (community meetings) to better advocate physiotherapy careers to Māori students, their whānau (ex-

tended families) and Māori communities, were recommended to increase Māori participation in physiotherapy programs.

Tertiary education barriers and facilitators

The majority of participants indicated that universities are less accessible to prospective Māori students than non-Māori students. The availability of Māori-specific support services is often not clearly communicated to Māori by the university and Māori students have difficulty obtaining basic transition and enrolment information. Some participants commented on the general reliance of universities on students' whānau to provide guidance during their transition into tertiary study. However, this approach disadvantages Māori in particular given that Māori whānau are less likely to have completed tertiary study and therefore may be less equipped to provide appropriate guidance. There were also concerns that for some Māori students the location of physiotherapy programs in cities at each end of the country (Auckland and Dunedin) necessitated a move away from home and whānau support resulting in isolation.

Participants identified the need to: clearly identify Māori students at enrolment; establish communication between these students and Māori support mechanisms; build relationships with students; and maintain regular contact throughout their course of study. Participants recognized that the university needed to be proactive in identifying struggling students early, because Māori were less likely to approach services for assistance at an early stage.

Health workforce and workplace environment

Participants noted the general lack of opportunity for advancement and professional development within many mainstream workplaces, as well as the lack of collaboration between physiotherapists and Māori health service providers. These were identified as factors contributing to reduced Māori physiotherapist retention in the MHDW.

A clear need for Māori career pathways within district health boards (regional providers and/or funders of health and disability services) to senior positions was identified. Participants also agreed that increasing Māori representation in the physiotherapy workforce is critical. Reasons given were that Māori health professionals were more likely to draw on Māori concepts of health to inform practice and communicate more effectively with Māori, and thereby improve Māori access to health services.

Pākehā (non-Māori) only treat physically, Māori treat the four cornerstones of health; hinengaro (mental), wairua (spiritual), tinana (physical) and whānau.

Māori are more likely to access the services if a Māori physio[therapist] is there.

Many participants indicated the need to support Māori health initiatives and increase the profile of Taeora Tinana by strengthening interaction between physiotherapists and the Māori community. The need to maintain a database of Māori physiotherapists and facilitate ongoing contact amongst Māori physiotherapists was also highlighted.

ORGANIZATIONAL LEVEL FACTORS

Commitment of governing bodies

Participants raised concerns at the low levels of recognition and acknowledgement of Māori by the Physiotherapy Board of New Zealand. Participants were unaware of any measures being taken by the Board to address Māori-specific concerns. Some participants commented on the Board's lack of understanding of Māori physiotherapist and patient differences and stated that the Board has yet to seriously consider cultural competency issues and cultural safety for Māori physiotherapists and clients.

Current physiotherapists' competencies are inadequate in the area of Māori health, Treaty of Waitangi and cultural safety; this has the potential to affect all physiotherapy students — Māori and non-Māori and their ability to adequately deliver physiotherapy services to Māori.

Participants emphasized that Māori representation on key organizations like the Physiotherapy Board of New Zealand, district health boards, AUT University, and the University of Otago undergraduate boards (the universities that delivery physiotherapy programs), and key health workforce development organizations was essential to ensure facilitation and support of Māori physiotherapy workforce development. Further, participants stated that this was the only way to guarantee initiatives "by Māori, for Māori." Participants identified the need for a whakaruruhau (Māori physiotherapist partnership) for Māori within the Physiotherapy Board of New Zealand. It was also highlighted that Taeora Tinana should have the ability to raise issues and make recommendations directly to the Physiotherapy Board of New Zealand.

Educational institution commitment — Physiotherapy programs

The Bachelor of Health Science (physiotherapy) curriculum was viewed as monocultural and inadequate by most participants in relation to the Māori

health context. Participants felt that there was an absence of integration of Māori tikanga; Māori processes; and that the course did not fully address Māori worldviews. The general lack of recognition and validation of Māori culture within physiotherapy programs was noted and was considered to be reflected in the absence of core Māori-specific papers and inadequate teaching in relation to cultural competencies. For example, integrated cultural competence related course information was limited to a very basic understanding such as the need to remove one's shoes when entering Māori homes, and to avoid touching a Māori person's head.

The program has a monocultural curriculum focused on clinical specialization with minimum attention to broader issues.

Cultural barriers represent the most insidious and damaging of all the barriers that affect Māori. By this I mean the lack of recognition and validation of Māori culture within 'mainstream' programs.

There was also concern amongst participants that some physiotherapy lecturers and educators showed low levels of Māori cultural competence and failed to acknowledge or understand Māori values, priorities, and distinctive ways of working. Participants raised the concern that on some clinical placements tutors relied on Māori students for guidance when dealing with Māori patients. Participants felt that this was compounded by the absence of Māori lecturers and tutors within physiotherapy schools. According to participants, the inadequacies of physiotherapy programs in providing cultural competency training resulted in inadequate preparation of both Māori and non-Māori graduates to work with Māori and iwi (tribes) and in Māori health services, and that this may threaten career aspirations to work with Māori.

Participants indicated that Māori students are not able to incorporate their own beliefs and values within programs, and that there is significant pressure to ignore and/or suppress Māori values and priorities in physiotherapy learning and practice. Examples provided included use of cadavers without appropriate Māori process such as karakia (prayer or incantation), and requirements to partially undress for mixed male and female class activities which compromised some Māori students' cultural values.

Massage and undressing in front of other students (males) to underwear and bras is inappropriate. These Māori needs need to be articulated to staff.

Participants stressed the need to integrate te reo Māori (Māori language); cultural safety; the Treaty of Waitangi; Māori health issues; cultur-

al competence; and, traditional healing, as well as reinforcing the importance of cultural identity within the physiotherapy program curriculum. Participants suggested that this would require involvement and input from key Māori stakeholders including whānau, hapu (subtribes), iwi, district health board Māori health managers, Māori health professional groups, and Māori health providers.

Participants recommended ensuring the program staff profile was representative. They also indicated that additional training was required to ensure that the university, faculty, and physiotherapy program staff had a greater awareness of cultural competencies, their responsibilities to Māori, and Māori issues in order to promote staff attitudes conducive to Māori student retention.

It's hard to get Māori enrolled in the physio course, your job is to keep them there, change your attitude.

The importance of recruiting Māori physiotherapists and Māori health providers to teach cultural practice components of the curriculum was also highlighted. Participants felt that Māori students would benefit more from having clinical placements within Māori health provider environments with Māori clinical educators.

Health institution commitment — Workplace environment

Participants showed concern that many physiotherapy workplace environments and processes are not supportive of Māori health and are not consistent with Māori cultural preferences. Some participants noted that in some instances there are incompatibilities between physiotherapy and customary Māori practices. There was some concern that there was a lack of tolerance towards distinctive approaches in addressing Māori needs, and that these types of attitudes inhibit the ability to incorporate Māori values, beliefs, and theories into physiotherapy practice. There was also some suggestion of non-Māori racism towards Māori physiotherapists in the workforce. For example, technical competency is sometimes questioned on the basis of ethnicity;

... there seems to be a general dislike of the idea of 'special treatment for Māori' and 'why can't we just all be equal' sort of attitude ... now any issue to do with 'extras' for Māori is a little sensitive.

Their attitude to Māori, they don't think Māori are of equal quality to non-Māori as health professionals, 'Oh they probably let you pass because you are a Māori, you're not a real physio[therapist]'.

Participants noted that Māori physiotherapists faced additional responsibilities and pressures relating to the expectations to advise, research, teach, and counsel on Māori issues in mainstream workplaces.

Being Māori itself can be a barrier because when one applied for work you are seen not just as a physiotherapist but also as a potential counsellor, tutor, charity-Māori employee etc.

Most participants agreed that Māori retention within the physiotherapy workforce and delivery of culturally appropriate services to Māori requires understanding and acknowledgement of Māori specific skills, practices, and knowledge, by health organization and physiotherapy professional bodies combined with opportunities for career advancement and postgraduate study.

INDIVIDUAL LEVEL FACTORS

Whānau commitments and study workload

Participants commented on the additional responsibilities such as tangihanga (bereavement ceremonies) and hui that may take priority over study for Māori students while in physiotherapy programs. Participants indicated that these responsibilities, combined with the high academic course workload of physiotherapy programs, and the absence of adequate support structures that recognize such commitments can be detrimental to the success of Māori students.

SUMMARY OF RESULTS

Māori Participation and Retention in the Physiotherapy Workforce: Summary of Results

Barriers	Facilitators
<i>System Level Factors</i>	
<p>Inadequate primary and secondary school education system responsiveness to Māori</p> <ul style="list-style-type: none"> • Low Māori participation, retention and success in secondary education 	<p>Enhanced responsiveness of primary and secondary school education</p> <ul style="list-style-type: none"> • Increasing Māori community and parent involvement in Māori student education • Improved cultural training for secondary school teachers • Access to quality career information and advice <ul style="list-style-type: none"> ◦ Māori engaged in promotion of health science careers

Barriers	Facilitators
<i>System Level Factors</i>	
<p>Poor access to quality health career information</p> <ul style="list-style-type: none">• Lack of encouragement for Māori in health careers• Poor provision of health career information tailored to Māori• Inadequate information regarding tertiary education requirements/prerequisites <p>Tertiary education barriers</p> <ul style="list-style-type: none">• Universities less accessible to Māori relative to non-Māori• Lack of communication about Māori support services• Reliance of universities on whānau to provide guidance and support during the transition to university.• Distant location of institutions	<p>Enhancement of the tertiary education system</p> <ul style="list-style-type: none">• Identifying Māori students at enrolment, building relationships and maintaining regular contact.• Being proactive in identifying struggling students.
<p>Health workforce and workplace environment</p> <ul style="list-style-type: none">• Lack of opportunity for advancement and professional development in mainstream workplaces• Lack of collaboration between physiotherapists and Māori health providers	<p>Strengthening Māori presence in the health sector</p> <ul style="list-style-type: none">• Increasing Māori representation within the health and education sectors• Māori career pathways and opportunities within district health boards and mainstream services.• Increasing Taeora Tinana profile
<i>Organizational factors</i>	
<p>Commitment of governing bodies</p> <ul style="list-style-type: none">• Lack of acknowledgement of Māori by physiotherapy governing bodies• Inadequate requirements for cultural competence and cultural safety training of physiotherapists	<p>Commitment of governing bodies</p> <ul style="list-style-type: none">• Māori representation and partnerships within key physiotherapy governing bodies.• Māori partnership with the Physiotherapy Board of New Zealand.• Increasing Taeora Tinana profile

<i>Barriers</i>	<i>Facilitators</i>
<i>Organizational factors</i>	
Educational institution commitment Physiotherapy programs <ul style="list-style-type: none"> • Monocultural physiotherapy program curriculum • Limited Māori course content • Low levels of Māori cultural competence of lecturers • Absence of Māori lecturers and tutors • Inadequate preparation of students for working with Māori • Inadequate teaching of cultural competence • Lack of value attributed to Māori approaches • Pressure to suppress/ignore Māori values and priorities in physiotherapy learning and practice 	Educational institution commitment Physiotherapy programs <ul style="list-style-type: none"> • Māori course content • Increasing Māori physiotherapy staff • Physiotherapy program staff cultural competence training • Clinical placements in Māori health provider environments • Collaboration with key whānau, hapū, iwi, district health board Māori managers, Māori health professional groups and Māori health providers
Health institution commitment — workplace environment <ul style="list-style-type: none"> • Mainstream physiotherapy workplace environments not supportive of Māori health, and not consistent with Māori cultural preferences • Lack of value attributed to Māori approaches • Personally mediated racism in the workplace • High expectations to be expert in and deal with Māori matters 	Health institution commitment — workplace environment <ul style="list-style-type: none"> • Recognition and valuing of Māori cultural competencies and practice models • Clear career pathways
<i>Individual factors</i>	
Whānau commitments	

MĀORI SUPPORT INITIATIVES

Participants identified a range of initiatives, both generic (e.g., scholarships, school and university visits, student advisors, academic support services) and Māori specific, aimed at facilitating Māori participation in tertiary education generally and in health sciences. The University of Otago Māori Centre; a specific Māori admissions category for entry into physiotherapy programs; bridging courses into health science programs; and a common first semester in health science degrees all provided early opportunities for Māori student networking. All participants were aware of the presence of Māori liaison staff within the universities and considered these services to provide excellent cultural and whānau support for Māori students. However, participants were concerned that a lack of funding and human resources in this area resulted in inadequate levels of individual Māori student support.

Programs work best when they are small, targeted and the support person can develop relationships with the students.

The Māori Centre was identified as the main Māori support structure at the University of Otago, providing individual support in areas such as learning strategies for Māori students. However, it was noted that the centre was located at some distance from the School of Physiotherapy which reduced its accessibility. It was also noted that the Otago School of Physiotherapy funds and organizes tutorials for physiotherapy students if they are not meeting paper requirements and informs the Māori Centre if a struggling student is Māori. Occasionally the university also provides funding for Māori students to attend Taeora Tinana hui.

Within AUT University, participants commented positively on the Integrated Team Model for Optimizing Student Success (ITMOSS), an equity program which aims to improve access and success for underrepresented groups, including Māori. However, some participants felt that students were not receiving the full benefit of this program because of a strong focus on data collection at the expense of hands-on student support.

There has ... been an increased emphasis on data collection and this has reduced the focus on supporting the students.

Participants noted that Māori student success relies heavily on the development and maintenance of personal supportive relationships. Further, that university Māori support services were limited in the amount of face-to-face contact time they could allocate per student given the low student

to support ratio. Participants expressed the need for Māori support services to increase contact time with less focus on data collection.

Participants also identified Te Ara Hauora Māori (Māori health pathway), an AUT University initiative to provide opportunities for Māori health science students to enter a Māori health pathway through health science degrees.

Participants recommended that funding be made available to increase opportunities for whakawhanaungatanga (relationship building) between Māori students, and also for support staff to build relationships with whānau. Participants also recommended using the Vision 20:20 (Māori and Pacific Island Admissions Scheme, Certificate in Health Sciences and Whakapiki Ake) model, a University of Auckland Māori medical, nursing, pharmacy, and health sciences student recruitment and retention program, for Māori physiotherapy student recruitment and support. They also identified an essential need to establish a university-initiated paid Māori student mentor program within the physiotherapy program to facilitate within-school Māori role model support.

All participants were aware of Taeora Tinana. Participants acknowledged that while the New Zealand Society of Physiotherapists (NZSP) are generally supportive of Māori issues, the location of Taeora Tinana within the NZSP does place constraints on its activities.

SUMMARY OF MĀORI SUPPORT INITIATIVES

Māori Support Initiatives		
<i>Support initiatives</i>	<i>Limitations</i>	<i>Recommendations</i>
General academic support <ul style="list-style-type: none"> • Scholarships • School and university visits • Student advisors • Academic support services Māori specific support <ul style="list-style-type: none"> • Māori liaison staff • The Otago Māori Centre • Funding of tutorials for struggling Māori students • ITMOSS 	<ul style="list-style-type: none"> • Lack of funding and human resources in Māori liaison in relation to Māori student proportion and demand • Distance of Otago Māori centre from School of Physiotherapy 	<ul style="list-style-type: none"> • Increased contact time and less focus on data collection • Funding to increase whakawhanaungatanga between Māori students, whānau and support staff.

<i>Support initiatives</i>	<i>Limitations</i>	<i>Recommendations</i>
<p>Māori health science support</p> <ul style="list-style-type: none">• Common first semester in health science degrees• Te Ara Hauora Māori — Māori health pathway• Māori Physiotherapy support• Funding for Māori students to attend Taeora Tinana hui.• Specific Māori admission category for entry into physiotherapy programs <p>Workforce</p> <ul style="list-style-type: none">• New Zealand Society of Physiotherapists• Taeora Tinana	<ul style="list-style-type: none">• Strong focus of ITMOSS on data collection• Limited face-to-face contact of Māori support services with Māori students due to limited resources	<ul style="list-style-type: none">• Modelling the MAPAS scheme within the Physiotherapy program• Establish a university initiated paid Māori student mentor programme within the physiotherapy program

DISCUSSION

This research reviewed the current Māori physiotherapy workforce profile and identified the inadequate capacity of this workforce to meet the needs of Māori patients. Barriers to Māori participation in the physiotherapy workforce were also identified at the systems, organizational, and individual levels. System level factors are associated with the actions of governing bodies affecting the physiotherapy education system and workforce. Organizational level factors relate to the ways in which specific education providers and other central physiotherapy providers operate. Individual level factors relate to the individual Māori student. Methods that may address selected system, organizational, and individual level barriers were identified.

There are clear indications from this research that Māori are grossly underrepresented in the physiotherapy workforce and that the physiotherapy workforce profile is inadequate in its capacity to meet the needs of Māori patients. A number of generic barriers to Māori participation in the professional workforce across sectors, and within the health sector specifically have been identified (Ratima et al., 2008). This research demonstrates that those barriers are equally relevant to Māori physiotherapy workforce development and that urgent action is required to ensure recruitment, training, and retention of a workforce that is appropriate to meet the diverse needs of all New Zealanders and therefore addresses Māori underrepresentation in the physiotherapy workforce.

SYSTEM LEVEL FACTORS

Recognition of Māori-specific needs and concurrent action to address those needs at the systems level among physiotherapy governing bodies, committees and decision-makers is a prerequisite to achieving effective Māori physiotherapy workforce development.

Adequate Māori representation and participation on all physiotherapy program and workforce governing bodies (e.g., the Physiotherapy Board of New Zealand) is critical to building the capability and capacity of the Māori physiotherapy workforce. Necessary approaches would also include taking action on the principles of the Treaty of Waitangi and fully addressing cultural competence within the wider New Zealand physiotherapy workforce and education systems. It is recommended that a partnership be established between the Physiotherapy Board of New Zealand and Taeora Tinana, and that Taeora Tinana be able to make direct recommendations to the Board in relation to Māori issues in the physiotherapy workforce.

Clarification of the responsibilities and roles of key stakeholders (including the Physiotherapy Board of New Zealand) in relation to Māori physiotherapy workforce development is essential to enable future progress. For example, workforce cultural competency is a requirement outlined in the Health Practitioners Competence Assurance Act (Ministry of Health, 2003b), although the role and responsibilities of the Board in relation to Māori physiotherapy workforce development to achieve the requirements of the Act are unclear.

While there is evidence of positive progress in Māori health workforce development in some other health fields (e.g., nursing and medicine), this research indicates that there is much work to be done in enhancing Māori physiotherapy workforce development. The integration of Māori content into the curriculum of physiotherapy programs would be an important start. This would also enhance the cultural competence of all graduating physiotherapists.

Both the University of Otago and AUT University have a stated commitment to the Treaty of Waitangi and ensuring equitable Māori participation and success across programs. It is therefore reasonable to expect that physiotherapy-related policies, strategies, and programs acknowledge the principles of the Treaty of Waitangi and incorporate proactive measures to address Māori underrepresentation at all levels. Strategies to achieve these goals should include the recruitment of Māori staff into management and teaching positions within physiotherapy schools. In addition, a focus on the

provision of cultural competence training for all physiotherapy school staff will be important.

Another element of a comprehensive approach is the strengthening of formal support programs for Māori physiotherapy students and their whānau. This should involve a face-to-face relationship based approach that includes outreach to parents and whānau, be initiated at an early stage during secondary schooling, when students are making course-related decisions that may affect their future opportunities to enter into health field programs such as physiotherapy. Further, the relationships should be maintained throughout the transitions to tertiary study and into the workforce. Support services need to communicate with Māori in a Māori way, as generic recruitment approaches have been largely ineffective. Cultural and academic support could also be provided through a tuakana/teina (elder sibling/younger sibling) mentoring and support program, where senior Māori students are paid by the university to tutor and support newer Māori students on a regular basis. Importantly, key Māori stakeholders should be consulted in the development of effective Māori physiotherapy workforce development initiatives that reflect Māori values, priorities, and preferences.

Physiotherapy workplaces need to provide career pathways and advancement opportunities for Māori including encouragement and flexibility to pursue postgraduate qualifications, incentives to work in services with high Māori enrolments, and support to collaborate with Māori health providers to develop Māori physiotherapy facilities. Māori physiotherapy workforce retention requires that non-Māori recognize, understand, and acknowledge Māori cultural values, beliefs, and practices within physiotherapy. Further, recognition of Māori skills, knowledge and cultural competence; addressing racism within the workforce; and reducing non-Māori expectation of Māori staff to take on additional roles when dealing with Māori issues will increase retention.

ORGANIZATIONAL LEVEL FACTORS

At the organizational level, appropriate cultural competence training of physiotherapy program staff is essential to the retention and success of Māori physiotherapy students. This training includes a focus on: the relevance of the Treaty of Waitangi to physiotherapy practice; historical and other determinants of Māori health; Māori cultural beliefs, values, practices and priorities; the relevance of culture to clinical practice; and their responsibilities in relation to addressing ethnic inequalities in health and with

regard to Māori issues. It is also essential to integrate cultural aspects of health into the physiotherapy curriculum, thereby ensuring cultural competence of all graduating physiotherapists and enabling them to provide more culturally appropriate physiotherapy services to Māori patients.

INDIVIDUAL LEVEL FACTORS

Māori participation in the physiotherapy workforce is also shaped by individual level factors that relate, for example, to socioeconomic status and whānau influences. The literature indicates that Māori participation in the health and disability workforce is affected by factors such as cost, travel, accommodation, and the distant location of education facilities. Therefore, serious measures to address Māori participation in the physiotherapy workforce need to include broader strategies that improve the socioeconomic position of Māori. While socioeconomics are likely to be equally relevant to Māori physiotherapy workforce development, they were not investigated in this research which focused instead on barriers and facilitators related mainly to physiotherapy education and career pathways. However, felt obligations to prioritize whānau commitments over study were identified as issues for students in the context of heavy course workloads.

LIMITATIONS OF THE RESEARCH

The scope of this research was limited. Further investigation in the following areas would enable a more comprehensive understanding of Māori participation in the physiotherapy workforce: the extent and accuracy of ethnicity data collection by physiotherapy institutions; Māori physiotherapy graduate destinations; the role of Māori secondary school factors in influencing entry into physiotherapy programs; and, the impact of individual level factors (e.g., socioeconomic status) on Māori participation in the physiotherapy workforce.

CONCLUSION

In the context of wide ethnic health status disparities and recognition of the importance of a representative workforce in addressing inequalities, the low level of Māori participation in the physiotherapy workforce is of major concern. While some strategies have been put in place to support Māori student participation in physiotherapy programs, current measures are primarily focused on addressing individual-level barriers. Further, interventions are limited in scope and are not comprehensive. As well, there is little

indication that existing initiatives have been developed based on the learnings of successful interventions in other health fields, such as medicine.

A comprehensive and coordinated approach to Māori physiotherapy workforce development should draw on learnings from other disciplines, such as medicine and nursing. The approach should address both the broad determinants of Māori physiotherapy workforce participation (e.g., social, economic, political, and cultural factors) as well as barriers at the system, organizational, and individual levels. Core elements of the approach will be: increasing Māori representation on physiotherapy academic programs and governing bodies (e.g., the Physiotherapy Board of New Zealand); targeted planning for Māori physiotherapy student and workforce recruitment and retention; an increased profile and presence of Taora Tinana; increased recognition and acknowledgement of Māori cultural beliefs, values, priorities and preferences in physiotherapy programs and workplaces; integration of physiotherapy services within Māori health provision; increased integration of Māori content in the physiotherapy curriculum; representative physiotherapy program teaching staff profiles; opportunities for Māori orientation in physiotherapy programs (e.g., clinical placements with Māori providers); and tailored support programs for Māori.

Physiotherapy has much to contribute to improving Māori health outcomes and reducing ethnic inequalities in health. For that potential to be realized, proactive measures are required to strengthen Māori participation in the physiotherapy workforce. While some of the identified measures may take time to implement, a number may be put in place immediately and at minimal cost. All that is required is the political will on the part of key physiotherapy stakeholders.

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