

Author Queries

JOB NUMBER: MS 137620

JOURNAL: GPHE

Q1 Please check the inserted running title.

Q2 Please supply history dates.

Undergraduate inter-professional learning involving pharmacy, nursing and medical students: The Maori health week initiative

THERÉSE KAIRUZ, & JOHN SHAW

School of Pharmacy, Faculty of Medical and Health Sciences, The University of Auckland, Private Bag 92019, Auckland, New Zealand

Q2

Abstract

Preparing health professionals in New Zealand requires an understanding of the principles of the Treaty of Waitangi and of the cultural needs and common illnesses of the Maori people. Inter-professional learning between pharmacy, nursing and medical students was incorporated into the undergraduate curricula at second-year level at the University of Auckland in 2002. Learning about Maori health is achieved through group work, with each mixed-discipline group of 12 students researching one health issue that is prevalent among the Maori, such as diabetes. Maori cultural advisors play a key role in conducting sessions of Te Reo, where they teach simple conversational Maori greetings and traditional songs and introduce cultural concepts. On the final day of the programme, each group presents a poster with their findings and recommendations to fellow students and assessors. Nursing students gave more positive feedback than pharmacy or medical students, and evaluation of the inter-professional programme was overwhelmingly favourable.

Keywords: *Experiential, indigenous health, inter-professional, Maori health, multidisciplinary, undergraduate*

Introduction

Health professionals in New Zealand require an understanding of, and an ability to implement, the principles of the Treaty of Waitangi. This is a founding document that protects the rights of the Maori, the indigenous people of New Zealand. The Treaty of Waitangi (1840) clarified the protective role of the British Government and the conferring of individual citizenship rights, but did not remove Maori control and management of resources (Durie, 1989). The right to official recognition and protection of Maori concepts of health is included in the Treaty. The three principles of the Treaty can be summarized as follows: governance by partnership with the Maori, protection of the Maori through self-determination, and participation by the Maori to gain equity.

The Maori comprise approximately 15% of the total New Zealand population. Disparities in the health of Maori and non-Maori have been widely acknowledged (Durie, 1989; Reid, Robson, & Jones, 2000), and the

government is committed to reducing these inequalities. The Maori have reduced life expectancy compared to European New Zealanders, who are referred to as 'Pakeha'. The suicide rate is higher, especially among young Maori, and the infant mortality rate is greater. Added to this, an increased level of diabetes and obesity, a higher incidence of smoking, and a greater prevalence of cardiovascular disease reduce Maori life expectancy and quality of life. The pattern of ill-health and disparities in health is similar to that of other indigenous populations (Bramley, Herbert, Jackson, & Chassin, 2004). Maori should have the same opportunities for health gains, but it must be recognized that there may be different understandings of health by Maori patients and non-Maori health providers.

The Maori perspective of health is holistic. Not all Western health professionals can understand that people of another culture require a balance of various elements in their lives in order to attain health. In the

Maori culture there are four cornerstones to health (Durie, 1985): the spiritual component, the psychic component, a bodily or physical component, and very importantly, a family component. This differs quite strongly from the Westernised definition of health by the World Health Organisation (WHO), which emphasises three components, namely physical, mental and social. Without their family, or 'whanau' (a term that refers to the extended family, which is similar to many African or Asian cultures) and their spiritual beliefs, Maori cannot be 'well.'

The Faculty of Medical and Health Sciences at the University of Auckland is composed of three professional schools of medicine, nursing and pharmacy, as well as schools of medical sciences and population health. The schools of nursing and pharmacy are relatively new, being established at the same time in 2000. The School of Medicine had for some years prior provided education in Maori health. Shortly after the introduction of nursing and pharmacy, the programme heads of the three professional schools identified the opportunity to address Maori health issues in an inter-professional context. Planning took place during 2001, with the first implementation of the learning initiative in July 2002.

The aim of this inter-professional learning initiative was to allow undergraduate health professionals from the disciplines of pharmacy, medicine and nursing to work together to reflect on issues related to the health needs of Maori people, how Maori health issues are addressed by health services, and the role and impact of health professionals in Maori health. Learning objectives related to three areas, namely the social and cultural context of Maori health, the personal attitudes and values of health professionals, and clinical practice.

Method

Cultural issues are best learnt through an immersion in language and culture. This type of learning has been incorporated into the undergraduate curricula of second-year pharmacy, medicine and nursing students in a four-day inter-professional programme that is conducted during a week of the University calendar year that has no other classes scheduled. Approximately 240–300 undergraduates have been involved each year since its introduction in 2002. Participation in this programme, *Te wiki o te hauora Maori* (or Maori health week) is a requirement for successful completion of each of the respective degree programmes. The learning initiative includes Maori language (*Te Reo*) sessions, and group work on a case study. The programme is introduced to the entire group of students, facilitators and cultural advisors at an opening ceremony. There is a traditional Maori welcome (*Powhiri*) which takes place at the University Maori meeting place, *Waipapa Marae*. A *marae* is a traditional meeting place for Maori, and plays an

integral role in the extended family community (or 'whanau'). Experts in Maori culture and health deliver a variety of presentations that focus on the Treaty of Waitangi, Maori concepts of health and disparities in health outcomes for the Maori.

Maori cultural advisors play a key role in conducting sessions of *Te Reo*, where they teach simple conversational Maori greetings and traditional songs and introduce cultural concepts. Written summaries of common greetings and Maori words and phrases are also provided. Students' attendance and participation is recorded, and they are required to demonstrate improved use of *Te Reo* in their group presentation (see below) but no formal marks are awarded.

Learning about health issues is achieved through working in mixed groups of about 12 pharmacy, nursing and medical students (24 groups in total), facilitated by faculty staff, clinical colleagues, health providers and Maori cultural advisers. Training sessions are conducted for facilitators, provided by the Faculty Education Unit. Facilitators are required to promote student interaction, liaise with students and cultural facilitators, encourage participation, and assist with group dynamics. Facilitators are not required to be experts in Maori culture or customs, as such information is provided by cultural advisers. One cultural adviser assists up to three groups.

Each group is assigned a health topic. The six topics include medical conditions that are prevalent among Maori people: diabetes, glue ear, ischaemic heart disease, meningococcal disease, smoking-related lung disease and mental health. 'Resource packs' containing relevant reading material and stationery for making a poster are provided. Group members are required to present new health initiatives delivered in a culturally appropriate manner that would be suitable for submission to a District Health Board (DHB). DHBs are responsible for the delivery of healthcare and for the management of healthcare funds in specific geographical areas in New Zealand.

The group must demonstrate an understanding of the particular health issue as it impacts the Maori, including socio-economic impact factors, using available evidence. It is not the aim of Maori Health Week that students should solve the 'health issue' of the individual patients used in the case studies, but rather that each project is used as a template to address wider socio-cultural issues. The following is an example of a case study.

There is a significantly greater prevalence of diabetes in Maori than in Pakeha. Joe is a 43 year-old Maori businessman who was found to have Type 2 diabetes when he visited his general practitioner (GP) for an insurance assessment. It had been some years since he had been seen by his doctor and on this occasion it was a locum that he saw. He was started on medication and advised to lose weight, exercise more, and stop smoking. After 6 months he returned to his

GP. His random blood glucose level was still very high and his weight was unchanged. No one had been monitoring his medication or supporting his efforts to lose weight.

The group's management plan must not discriminate against the Maori but be culturally appropriate, and must also take into account the roles of the different health professionals that the three student groups represent. Students deliver their management plan in an oral presentation and in a written poster.

Results

Assessment

Presentations and posters are assessed by designated staff and cultural advisers, and the grading guidelines are reflected in Table I. Students are informed of the guidelines in their Maori Health Week booklet. Student performance is measured according to the grading criteria, and the winning group is announced at the closing ceremony. All participants in Maori Health Week (students and facilitators) are presented with certificates of participation, and members of the winning group receive an additional certificate for excellence. They are presented with a specially commissioned carving 'Te Puawaitanga'; translated this means 'The blossoming'. It is displayed in the entrance foyer of the Faculty building, and each year the names of the winning students are engraved and added at the base of the carving. The satisfactory participation and completion of Maori Health Week is a requirement for the three degree programmes. To date, all but a handful of students have successfully completed the programme, and a few have been required to repeat the week so as to achieve satisfactory participation.

Written feedback from students included a pre-test of knowledge about Maori health issues and the Treaty of Waitangi composed of 12 questions. This was repeated in the post-test, which also included a survey of attitudes to learning with other health professional students (Horsburgh & Lamdin, 2004).

Table I. Grading guidelines.

Marks (=100)	Criteria
10	Title and authors clearly defined
35	Key problems identified and clearly discussed Available evidence reflected Underlying determinants identified
35	Appropriate and realistic plan developed Multidisciplinary and realistic Culturally appropriate Innovative
15	For poster: Layout is logical, clear, and has impact
5	For oral presentation: Is audible, logical, has impact and meets timing guidelines

The low reliability (Cronbach's alpha 0.13) of the evaluation of knowledge about the Treaty of Waitangi provided little formation about student learning, and did not explore in-depth understanding (Horsburgh & Lamdin, 2004). In terms of attitude, most students supported the role of Maori in the provision of healthcare. The student evaluation of learning Maori language (*Tē Reo*) was overwhelmingly positive. Positive comments included appreciation of the need to correctly pronounce names and words, the fun of the whole experience and the support of the teachers.

Inter-professional learning

The majority of responses were positive toward learning with other health professional students and also about the overall experience of the week (Horsburgh & Lamdin, 2004). Students commented enthusiastically on the pooling of different knowledge, meeting new people and interacting with peers they would work with in the future.

There were 40 Nursing, 64 Pharmacy and 102 Medicine students who completed the evaluation in 2002 (student numbers have increased each year as the schools of nursing and pharmacy expand). Pharmacy students had the lowest response (84%) to 'learning with other students helps me develop teamwork skills', with nursing students highest at 94%, and medicine students at 86%. The responses to the six questions related to inter-professional learning in 2002 are shown in Table II. The responses 'Agree and Strongly Agree' and 'Disagree and Strongly Disagree' have been combined into 'Agree' and 'Disagree', respectively. The major issues raised in the open-ended questions were student participation and group dynamics. However, by the end of the programme, groups were working together as teams rather than as sub-units from three different health disciplines. Focus group discussions with each of the three undergraduate disciplines were also conducted following the completion of Maori Health Week. Again, responses were overwhelmingly favourable.

Discussion

From the students' perspective, Maori Health Week provides a valuable introduction to inter-professional learning and an opportunity to focus on the health issues of the indigenous people of New Zealand. Their positive responses indicate that the learning objectives have been achieved, namely working together in an inter-professional manner to reflect upon Maori health issues, and the role of health professionals in providing culturally appropriate health services to Maori people. The plans and initiatives they presented provided the opportunity to learn about current services, and to think about ways they can be improved.

Table II. Percentage* responses regarding 'Learning with other students' in an undergraduate inter-professional context.

	Medicine (<i>n</i> = 102)			Nursing (<i>n</i> = 40)			Pharmacy (<i>n</i> = 64)		
	Agree	Disagree	Neutral	Agree	Disagree	Neutral	Agree	Disagree	Neutral
... has helped develop my communication skills	78	9	13	94	–	6	89	2	9
... increases my ability to understand clinical problems	61	14	25	83	6	11	83	3	14
... encourages me to think positively about other health issues	78	3	19	94	3	3	86	3	11
... helps me to develop teamwork skills	86	4	10	94	–	6	84	3	13
... helps me to understand my own professional limitations	78	5	17	66	3	31	70	5	25
Overall, I was satisfied with the quality of the experience	67	4	19	97	–	3	70	5	25

*There were 206 completed questionnaires (2002).

Nursing students gave more positive feedback than medicine or pharmacy students to all the questions except one: '... helps me to understand my own professional limitations.' Only 66% of nursing students agreed with this, while their responses to the other questions had indicated a majority agreement of 83% or more. The nurses appeared more satisfied with the overall quality of the experience than medical or pharmacy students. This could be due to the group work and team-study that form part of the nursing undergraduate curriculum, which are initiated from an early start in their programme. For many years medical students were the only professional undergraduates in the Faculty of Medical and Health Sciences, and it is possible that there was a feeling of 'displacement' among these students after the recent addition of the schools of nursing and pharmacy to the Faculty in 2000.

Many of the pharmacy students are immigrants to New Zealand (more than 50% of current students), although it is a prerequisite for admission to the School of Pharmacy that they must have attended a New Zealand secondary school for at least three years. Maori Health Week gives all students an opportunity to learn important aspects of health provision that will be culturally appropriate for Maori patients. It also creates an awareness of the need for health providers to be culturally sensitive to all patients, as New Zealand is a culturally diverse nation.

Faculty support

A learning initiative that involves up to 300 undergraduate students, approximately 15 Maori cultural advisors and 24 group facilitators, requires considerable effort and organization. The Faculty of Medical and Health Sciences is committed to supporting Maori Health Week, and local Maori have been supportive of the initiative. The fact that it is conducted during the final week of the mid-year break meets with a certain

amount of resistance from students. They feel that the learning initiative encroaches on their holiday or free time, which provides an opportunity for students to visit family living overseas or to gain additional income to supplement their studies. One suggestion under consideration is that the University calendar year is extended by a week to include this learning initiative so that it does not reduce holiday time, yet allows it to be conducted at a time when classes are not being scheduled during the semester. Appropriate survey instruments to measure student learning about the Treaty of Waitangi and Maori health issues need to be developed.

The School of Pharmacy supports the Maori and Pacific Admission Scheme (MAPAS) within the Faculty of Medical and Health Science, which assists Maori and Pacific Island students to gain admission and provides support from the University. This support includes mentoring, tutoring, advice and resources. The pharmacy profession is addressing its responsibilities under the Treaty of Waitangi in providing a platform for the formation of the Maori Pharmacists Association, which was constituted in May 2004.

Personal insight

Facilitators have found the experience of working with Maori cultural advisors rewarding. We have seen students struggle with the concept of the Treaty of Waitangi, which is a challenging and complex set of principles. We have seen initial resistance give way to a desire to contribute to the health of the nation and all of its people.

The woven basket is an important symbol in Maori culture, the threads representing the interaction of different aspects of life, including the four cornerstones of health. This is reflected in the Maori parable, 'Ko tau raurau, Ko taku raurau, Ka ora te iwi'; With your foodbasket and my foodbasket, the people will

flourish and live. When health professionals from different cultures are sincere in their attempts to serve the public in a culturally safe manner, the parable can be adapted: 'You take this handle, and I'll take that handle, and together we can carry the basket.'

Acknowledgements

Margaret Horsburgh and Rain Lamdin, for data collection and evaluation. Mere Forbes, for cultural advice. Philippa Poole, Undergraduate Programme Director (Medicine), and Heather Baker, Undergraduate Programme Director (Nursing), cultural advisors, colleagues, clinicians and members of the University of Auckland who assisted in this learning initiative. Funding was provided by the University of Auckland.

References

- Bramley, D., Hebert, P., Jackson, R., & Chassin, M. (2004). Indigenous disparities in disease-specific mortality, a cross-country comparison: New Zealand, Australia, Canada, and the United States. *New Zealand Medical Journal*, *117*, on the Internet: <http://www.nzma.org.nz/journal/117-1207/1215/>. Accessed 17/12/2004.
- Durie, M. H. (1985). A Maori perspective of health. *Social Science Medicine*, *20*, 483–486.
- Durie, M. H. (1989). The treaty of Waitangi and health care. *New Zealand Medical Journal*, *102*, 283–285.
- Horsburgh, M., & Lamdin, R. (2004). Maori health issues explored in an interprofessional learning context. *Journal of Interprofessional Care*, *18*, 279–287.
- Reid, P., Robson, B., & Jones, C. P. (2000). Disparities in health: Common myths and uncommon truths. *Pacific Health Dialog*, *7*, 38–46.
- World Health Organisation. About WHO. On the Internet: <http://www.who.int/about/en/>. Accessed 10/01/2004.