The health status of Māori nursing students:

A cross-sectional survey

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Abstract

In New Zealand Māori are less likely to engage in tertiary level education and less likely to complete a tertiary level qualification than non Māori. These issues of recruitment and retention are reflected in other areas for Māori such as health, where Māori have worse levels of health Māori are more likely to have lower socioeconomic status. The initial findings of recent research indicate that Māori nursing students find it a struggle to remain on the Bachelor of Health Science in nursing degree programme. This study is designed to explore further what might be occurring for Māori nursing students by obtaining a snapshot of their health.

Aim: To describe the health status of Māori nursing students.

Participants: 75 nursing students undertaking nursing degree programmes in New Zealand, who identified as Māori.

Method: A cross-sectional survey was undertaken with Māori nursing students completing nursing degrees from thirteen of sixteen tertiary institutions in New Zealand.

Instrument: A questionnaire comprising demographic data, SF-36, and two cultural questions was used for students to self assess their health status. Participants were also invited to write relevant comments on the survey.

Findings: Descriptive statistical data revealed participants with a stronger cultural identity as Māori were more likely to have their cultural needs met whilst studying compared to participants with a weaker Māori cultural identity. Participants in a relationship had more income than those who were not in a relationship. Participants' overall health was worse than one year prior and their physical health was better than their mental health. More specifically, for physical health, general health, tiredness and lack of vitality were most affected, while roles and relationships were most affected for mental health.

Implications: Institutions providing cultural support and kaupapa Māori programmes may assist in improving the recruitment and retention of Māori in nursing programmes. These results revealed a snapshot picture of the health

status of Māori nursing students and identified issues around their health status which is consistent with the literature.

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Chapter 1: Introduction

This study examined the health status of Māori nursing students in New Zealand. As a Māori registered nurse, previous Māori nursing student and current Māori nurse lecturer, postgraduate student, and the researcher of this study, I have an interest in Māori nursing students. Through my experiences I developed an awareness of Māori nursing students' health and have wondered how best they can be supported. Unpublished research by Wilson (n.d.) found Māori nursing students surveyed found it a struggle to remain on nursing degree programmes. I was intrigued as my experience and observation as a nurse lecturer, in addition to anecdotal information, concurred with these findings. This research provided an opportunity for Māori nursing students to share their health status, which provides evidence to inform the provision of academic and cultural support systems.

Wilson's research (n.d.) reflects the struggles and stresses experienced by many Māori nursing students. Indeed, I have observed a higher dropout rate for Māori nursing students compared to non-Māori students where I work. According to Manchester (2000) this is not an uncommon theme. Therefore, I decided to investigate if the health of Māori nursing students could be impacting on their ability to complete a degree in nursing.

The health status of Māori nursing students had not been researched prior to this study, although there is plenty of research and literature available on Māori health as well as student health. Māori health is influenced by a number of factors (Durie, 2004a, 2005a). Māori health can be linked to factors such as the consequences of colonisation, and the dishonouring of Te Tiriti o Waitangi. The consequences of colonisation include loss of land, urbanisation, loss of language and cultural practices, assimilation and discriminatory practices, all negatively impacted on Māori health, such as having a secure cultural identity and access to culturally acceptable health care services (Durie, 2004a; Kingi, 2006). In

contemporary society, this has led to Māori being subjected to inequities reflected in socio-economic determinants of health. Health status of Māori needs to be traced historically to determine the factors having influenced contemporary Māori health.

Pre-colonial Māori Health Status

Prior to colonisation Māori enjoyed an existence characterised by life in hapu based villages. Hapu or extended family based villages identified with a common tribal ancestor and migratory canoe, and the people lived within clearly defined geographical boundaries. Leadership was provided by a paramount chief and other rangitratanga such as Tohunga or spiritual leaders. The relationship with land is evident in Māori beliefs and values, and inextricably connected to the identity of Māori. Māori would guard their land borders and fight to retain or gain land was a way of life. The importance of land is reflected in the Māori creation stories that bind humanity and the land, Papatūānuku, who is the mother of all living things.

Every part of the physical environment is linked to the spiritual realm of Māori, with the earth mother and sky father the parents of the Atua or Gods of the world and heavens. For example, Tāne, God of the plants and insects is the son of Papatūānuku and Ranginui. Any exchange between this part of the environment and Māori, such as gathering plants for medication required a recitation or karakia to be said first to lift the 'tapu' or sacred status of the medicinal plant to a 'noa' or normal status, so it could be used. Beliefs of physical and spiritual connections, the Gods, Tapu and noa and karakia permeated every aspect of Māori culture and Māori identity. Māori were gatherers, hunters and farmers, and enjoyed a lifestyle which was physically demanding and sustained with a healthy diet of seafood, birds, nuts, berries, roots and vegetables such as puha and kumara. Durie (1998) discussed how the first sightings of Māori recorded indicated they were healthy individuals who were tall, well built and brown skinned

Te Tiriti o Waitangi

In the years subsequent to Cook's visit in 1769, New Zealand was visited by European and American whalers and sealers who had some contact with various native tribes. By the early 1800s enterprising men in Britain were looking at New Zealand as suitable for colonising. The exposure of the British Empire to Māori was a revelation and Māori embraced new technologies and opportunities, which extended their trading and outlook on life. Confident in their own existence and identity, Māori chiefs welcomed a new world where the white man or Pakeha would come and live in Aotearoa, New Zealand alongside Māori. The benefits of sharing their land in exchange for new technology and access to a new world appeared to be a strategic move that the majority of Māori chiefs embraced, evidenced by their signing of the Treaty (King, 2007; Orange, 2004).

In 1840 a Treaty was signed by over 500 individual chiefs and rangatira that set out an agreement for the coexistence of two different people and cultures within Aotearoa, New Zealand. Te Tiriti o Waitangi is the founding document of Aotearoa, New Zealand and defines the nature of the relationship the Crown would have with Māori. Unfortunately there are two differing versions - an English and a Māori version. The two versions differed greatly on important points such as sovereignty, land sales and the purpose of the Treaty. The Māori version ensured Māori sovereignty, Māori rights to their land, possessions and culture. The English version transferred Māori sovereignty to the Crown and established the Crown as the sole purchaser of Māori land. Of the two versions the English one was adhered to by the New Zealand government from 1840 right through till the 1980's. Not only was the English version favoured but some of the most vital points for Māori in that version of the Treaty were not honoured (Orange, 2004). Kingi's (2006) analysis of the Treaty identified it as being about the health and wellbeing of Māori, despite the contemporary focus being on the resolution of land issues. He states:

> Insofar as providing a framework for Māori health development the offerings of the
> 1840 agreement had failed to materialize. Though this is perhaps not a fault of the

Treaty itself, but more a reluctance by the Crown to fully implement its many provisions – including those directly connected to Māori health. (p.5)

When we examine the raft of legislation created after the signing of the Treaty we can see a history of land alienation, breaches of human rights and deprivation for Māori when compared to Pakeha.

Colonisation

Māori health has long been a concern in New Zealand, with Māori health being recorded in literature since the colonisation of New Zealand in 1840 (Durie, 1998; Kingi, 2006). Tracing the status of Māori health highlights the impact that colonisation has had on Māori health Pre-colonial Māori maintained a good level of health compared to their European counterparts, possessing successful rongoā or healing methods (Durie, 1998). However, settlement introduced diseases such as influenza, measles and sexually transmitted infections (Kingi, 2006; Orange, 2004) which Māori did not have immunity to. As a result the Māori population suffered a dramatic increase in mortality and morbidity, going from a population of an estimated 150,000 down to 42,000 by 1896. Kingi (2006) mentioned it dipped as low as 20,000. Influenza had a devastating effect on Māori mortality rates. Māori traditional healing methods were ineffective against the diseases killing them. Māori health advocates, such as Maui Pomare, Te Rangi Hiroa and Apirana Ngata, worked tirelessly at community and political levels to introduce strategies to assist in reducing the number of illnesses related deaths and disease for Māori (Durie, 1998). Strategies included introducing Māori health inspectors who were responsible for health promotion within various Māori communities, and the training of Māori registered nurses with the vision to work with their people (Abbot, 1987a, 1987b, 1987c; Holdaway, 1993). After the signing of Te Tiriti o Waitangi the number of colonial settlers increased dramatically while Māori mortality rates increased so much that one politician was recorded as saying "the Māori are dying out and nothing can save them. Our plain duty as good and compassionate colonists is to smooth their dying pillow" (cited in Dow, 1999, p. 48).

As Māori survived and adapted to a new world with new illnesses, medicines, food and social norms, their life expectancy slowly improved. However, the health gap between Māori and non Māori steadily increased. By the 1980s, Māori life expectancy was parallel to that of non-Māori, and while improving a gap was evident. The 2008 Social Report (MSD, 2008) shows that in 2002 a gap remains between Māori and non Māori mortality, that is 77.2 years versus 69.0 years for males and 81.9 years and 73.2 years for women, respectively. Māori are over-represented in poor health and social statistics, identified by many sources including the Ministry of Health (2007). This over-representation of Māori indicates that the 'playing field' is not even for Māori, as they suffer inequities due to lack of access to health services and other determinants of health.

Racism

Racism has contributed to the inequities that Māori have suffered over the years. The third Treaty article refers to 'rights' and guarantees Māori will enjoy the "same rights as British citizens". However, this proved to be an empty promise (Kingi, 2006), and Māori have been subjected to sustained racism and assimilation tactics since the signing of Te Tiriti o Waitangi (Reid & Robson, 2006). Assimilation tactics, through a relentless attack on Māori culture and cultural values has resulted in Māori being denied their language in public schools, having their land taken forcibly by arms and legislation (Walker, 1990; Durie, 2005a). Laws passed and penalties enforced and alienated Māori from their cultural, spiritual and economic base reducing them to second class citizens in their own country and robbing them of their mana and sense of wellbeing.

Racist practices such as demeaning stereotypes propagated by media, public figures and politicians have also attacked the wellbeing of Māori and created a social environment where demeaning and diminishing Māori became an acceptable practice. Māori are more likely to be treated harshly by the judicial system, and to be subjected to institutional systems that are hegemonic, monocultural and unfavourable (Eckermann, Dowd & Jeff, 2009). This is

reflected in statistics that show Māori are less likely to be successful in education, accessing health services and attaining higher paid jobs. These processes of assimilation and racism have contributed to the diminishing of Māori culture and wellbeing

Cultural Identity and Māori Health

Cultural identity has also been identified as having a huge impact on health as identified by Coupe (2005) and Durie (2005b). Subsequent colonisation in New Zealand resulting in assimilation and cultural suppression of the Māori impacted on their health. This cultural suppression occurred at all levels of New Zealand society, right from the passing of laws forbidding traditional Māori healers to practice with individuals and personalised racism. The banning of Māori spoken language in schools and the insistence Māori to learn, speak and function in everyday society with the English language has negatively impacted Māori cultural identity, and subsequently Māori health (Durie, Fitzgerald, Kingi, McKinley & Stevenson, 2002; Coupe, 2005).

As the questionnaire used in this study did not have a question relating to cultural identity or cultural needs being met in relation to health status I thought it was important to include this in the study. Therefore, a questionnaire consisting of a cultural identity framework defined by Durie, Fitzgerald, Kingi, McKinley & Stevenson, (2002) was adapted into the questionnaire as another question, followed by questions relating to participants' cultural and spiritual needs being met.

Māori Health Models

When we look at Māori approaches to health we see that Māori include cultural aspects such as whānau and spirituality as part of their overall wellbeing. Health models developed by Māori to demonstrate this particular view Māori

have of their health, include Te Whare Tapa Wha (Durie, 1994), Te Wheke (Pere, 1984), Nga Pou Mana (The Royal Commission on Social Policy, 1998) and Te Pae Mahutonga also (Durie, 1999). Te Whare Tapa Wha has four main components, tinana (physical), hinengaro (mental), wairua (spiritual) and whānau (family) (Durie, 2005a). These components exist in an interrelated relationship similar to the four walls of a house. If one aspect is damaged then the integrity of the house is affected. Therefore, for health to be maintained, all four walls must be in balance. The aspects of environment and land, and their impact on Māori health are identified in the model Nga Pou Mana (Royal Commission on Social Policy, 1988).

As this study is about the health status of Māori participants it therefore follows that whatever tool is used to gather data should also reflect Māori aspects of health. SF-36 measures health, not just from a physical perspective, but also from an emotional and mental perspective. This fits well with Māori concepts of health and even acknowledges family within the mental health section of the questionnaire. However, it does not include cultural or spiritual wellbeing.

Determinants of Health

Today Māori health is viewed in the context of socioeconomic status, as socioeconomic determinants of health, especially those with lower socioeconomic status are more likely to suffer ill health (Ajwani et al., 2003). Health determinants include the following: education, housing, employment, income, income source, access to transport, access to telecommunications (National Health Committee, 1998). Māori are more likely to have lower education levels, lower paying jobs requiring more manual skills, and lower housing standard (Fawcett et al., 2005; Statistics New Zealand, 1996). These factors compromise Māori health and wellbeing. Education as a health determinant has a direct impact on socioeconomic status as Māori with lower education are more likely to be employed in lower paying jobs compared to non Māori. Conversely, higher education leads to higher paying jobs (Bennet, 2002).

Student Health

Student health is related to issues such as stress, living away from home and not being able to work whilst studying, compounding academic workloads (Flavell, 2005; Jones & Johnston, 1997; Sadler, 2005). Students are known to have generally lower incomes and socioeconomic status. Preliminary findings by Wilson (n.d.) discovered that Māori nursing students struggle to remain on nursing programmes. Māori recruitment and retention in the health professions and in nursing programmes is an ongoing issue, therefore research on Māori student health might shed some light on factors impacting on their achievement in nursing programmes.

Research by Flavell (2005) examined the impact of stress and acculturation on nursing students. This study looked at the process of nursing education where students were dealing with an academic and a nursing environment, and culture that is not always supportive. For nursing students it is not enough to learn how to 'act' like a nurse. Nursing students are also expected to learn to think and view things from a 'nursing' perspective.

Aim of Study

The aim of this study was to ascertain a snapshot picture of the health status of Māori nursing students, and issues around their health status. The results were compared to relevant literature to ascertain if the results concurred with current knowledge about the health status of Māori. This study will provide information about the inequalities that exist for Māori nursing students. Māori were able to share their perspectives, knowledge and concerns about their own health. This information can inform responses to the issues that impact on Māori; especially in the area of health, or in this case the health of Māori nursing students.

Methodology

Participants were recruited from the 16 tertiary institutions across New Zealand offering a degree course in nursing. An adapted SF-36 cross-sectional survey, amended to include three additional questions on cultural identity and cultural and spiritual needs, was used as a self-report tool by participants to identify their health status. Participants were also able to write relevant comments on the survey. Demographic data identifying participants' age, gender, relationship and family status and income was collected. Data were analysed using SPSS 15.0 software.

SF-36

The SF-36 was derived from a large study called the medical outcomes study (MOS). Eight health concepts were selected from the MOS for their representation of the most frequently measured health concepts used in health surveys (Ware, 2009). The MOS was designed to examine whether patients outcomes were influenced by the differences in care and to develop practical ways of measuring patient outcomes including role functioning, activities of daily living, and patient's perceptions of their general health. In the MOS cross-sectional study individuals evaluated their own health status and treatment. Some patients with health conditions such as diabetes and heart disease were included in a longitudinal study (Tarlov, Ware, Greenfield, Nelson, Perrin Zubkoff, 1989). The SF-36 also examines health concepts related to disease and treatment. The indicators of health include looking at function, dysfunction, mental stress, and feelings of wellbeing using objective and subjective self rating. It includes both positive and negative self evaluation aspects of health status (Ware, 2009).

Research conducted in Aotearoa New Zealand using SF-36 included Oranga Kaumātua: Perceptions of Health in Older Māori People (Waldon, 2004). Waldon examined the European designed SF-36 questionnaire for its suitability for use with Māori to self report their health status. A study by Scott, Safarti,

Tobias and Haslett (2000), and one by the Ministry of Health (MOH, 2007) surveys examining the health status of New Zealanders. Indeed the 2007/2007 survey titled 'A portrait of health' identified that Māori self reported health was lower than European/New Zealanders (MOH, 2006.2007). These results demonstrate that since the MOH health surveys in 2002/2003 (MOH, 2004) and in 1998 (MOH, 1999) issues for Māori health still reflect lower self reported health status and higher morbidity rates (MOH, 2004). Māori females scored their health status lower than non Māori in all categories bar one, including: physical functioning, roles physical, bodily pain, general health, social functioning, role emotional and mental health. Māori females scored their vitality slightly higher than their New Zealand European counterparts but still lower than Pacific and Asian (MOH, 2004). Māori males scored themselves lowest on all the physical components including physical functioning, roles physical, bodily pain and general health. Vitality levels for Māori males scored slightly higher than New Zealand European but lower than Pacific and Asian. With the mental components of social functioning, role emotional and mental health Māori males scored themselves lower than New Zealand European and Asian, and Pacific were the lowest (MOH, 2004).

The research by Waldon (2004) identified that kaumātua who have access to cultural environments and roles within them, especially within a marae setting, are more likely to identify their health status as being better than those who don't. As culture is identified by Māori as part of Māori health, this survey confirms that perspective and the importance of looking at health for Māori within a cultural context (Durie, 2005b).

Overview of the Thesis

Chapter Two of this study looks at the literature and research conducted around Māori health, Māori education, student health and the importance of cultural identity for Māori well being. Chapter Three looks in more depth at the

methodology of this study and addresses such areas as validating the study, ethical considerations, trustworthiness and how information is being gathered and analysed. Chapter Four records the results of this study and includes tables of data. Chapter Five discusses the findings of the study and incorporates comments from the participants, which contributed to a richer and more in depth analysis of the issues identified in the results. Chapter Six makes some recommendations based around the results of the study and subsequent discussion of the issues identified in this study.

Chapter 2: Literature review

Māori nursing student recruitment and retention is lower than non Māori and there are corresponding themes for Māori registered nurses at only 7.5% of the active nursing force. It is important that we examine the issues surrounding Māori nursing students including their health as this may have an impact on their remaining on the nursing programme, successfully completing it and engaging in the workforce (Career Services, 2006; Manchester, 2000; Royal Society of New Zealand, 2005).

The health status of students within tertiary education is important as student health will impact directly on how they cope with study and the study environment (Jones & Johnston, 1997). Māori are under-represented per head of population in tertiary institutions in New Zealand (Bennet, 2002; Royal Society of New Zealand, 2005).Under-representation is not unusual for ethnic minorities and Fletcher et al. (2003) identifies that while there may be increasing numbers of ethnic minority groups within general populations there is a clear disparity in the representation of these minorities in nursing education.

This chapter examines the literature surrounding the health status of Māori nursing students. The recruitment and retention of Māori into nursing, Māori health status, inequity, cultural identity and their impact on health is examined. Student and nursing student health is discussed together with Māori and Māori nursing students in education, as well as strategies for improving Māori health.

Background

Based on a personal and professional interest in situations experienced by Māori in health and in education, I formulated the following research question: 'What is the health status of Māori nursing students?

No literature about the health status of Māori nursing students was found. Literature was accessed through medical and nursing databases such as EBSCO, CINHAL, PROQUEST and general searches using GOOGLE, using keywords such as nursing, student, Māori, health, wellbeing. This search strategy did not find anything specific to the research question. What was discovered was minimal research on nursing students and little on Māori nursing students, and nothing on Māori nursing student health status.

Associated topics such as Māori health in general and teaching environments more suited to Māori generated a wider range and depth of literature. However these topics were not specific enough to provide information relevant to the research question. Research about Māori health in general and Māori teaching environments do however contribute to the social, health and educational environment Māori nursing students find themselves in. As such this information is suitable for setting the background within which Māori nursing students function.

Health Status

In New Zealand Māori are recognised as being over represented statistically in poor health issues. Health statistics reveal that Māori have higher rates of cardiovascular disease, obesity, smoking, cancer, asthma mortality, mental illness, suicide and mortality than non Māori (Blakely, Fawcett, Atkinson, Tobias, & Cheung, 2005; Fawcett et al., 2005). For example, Māori males between the ages of 45-64 years of age have ischemic heart disease, three times higher than non Māori between 2000-2004 (Curtis, Harwood & Riddell, 2007). Māori are three times more likely to be admitted to hospital for heart failure (Curtis, Harwood & Riddell, 2007). Māori researcher Lis Ellison-Loschmann (2004) identified that Māori suffer higher morbidity and mortality rates than non Māori. What is

obvious is the persisting gap between Māori and non Māori health statistics. Non-Māori are reducing their morbidity and mortality rates more effectively than Māori resulting in a widening gap of health inequality. When we consider what the literature identifies around Māori and health it follows that Māori nursing students are also more likely to have health issues than non Māori.

Inequalities in Health

In New Zealand levels of socio economic equality have been stated in terms of socio-economic status and measured by a deprivation scale. Decile 1 represents people in the lowest area of socio-economic deprivation and decile 10 represents people living in the highest areas of socio-economic deprivation (Ministry of Health, 2000). The population residing in deciles 8, 9 and particularly 10 have the lowest income nationally, the highest rates of unemployment, dominate the manual and unskilled labour force, are more likely to be living in substandard over crowded housing and suffer the worst health statistics over all (Kawachi & Woodward, 1998).

New Zealand Māori are over represented in high deprivation areas – that is 70% of Māori reside in high deprivation neighbourhoods. As Māori are approximately 15% of New Zealand's total population, the social and economic representation of Māori as having high needs is clearly defined by these figures (MOH, 2000). When the determinants for Māori health are examined, social, economic and cultural determinants are recognised as having the most impact on their health status (MOH, 2000). This is confirmed by Blakely (2004) who established a relationship between Māori health status, health determinants and inequalities in health for Māori.

Students are identified as a low socio economic population who are living in poverty (Bradford, 2000). Although some students work, it will be part time due to the commitments of nursing study which requires students to complete a specific programme of education within a required timeframe as directed by the Nursing Council of New Zealand (2005). Another factor impacting on students who have just left high school is student income; high school graduates are less likely to have previous job training allowing them to hold higher paying jobs (Statistics New Zealand, 1996). Therefore, if Māori suffer more health problems than non Māori and students are more likely to have low socioeconomic status, the odds for Māori students are not good. Māori students are more likely to have health issues and less financial resources.

Cultural Identity and Health Status

Being Māori has a unique significance as they are signatures to New Zealand's founding document, Te Tiriti o Waitangi signed in 1840 (State Services Commission, 2004-2006). This document clearly outlines the government's obligations to protect and provide for Māori as Crown partners and to ensure Māori enjoyed the same benefits and rights as those experienced by Crown subjects or New Zealand European. When we examine Te Tiriti o Waitangi we can see clearly outlined in the three articles the agreement between the Crown and Māori. The first Article in Te Tiriti o Waitangi locates responsibility for laws and governance with the Crown (Orange, 2004). Laws are created to protect the populace and to give direction for the use and allocation of government resources. This Article clearly puts trust in the ability of the government to use the resources of New Zealand to protect Māori. When we look at the second and third Articles we see that Māori are guaranteed full and undisturbed access to their lands, waterways, kainga and taonga (Orange, 2004; State Services Commission, 2004-2006).

Taonga means treasure or precious and valued possession including language, children and in this case health. Te Tiriti o Waitangi affirms Māori the same rights as those enjoyed by British citizens (Orange, 2004). As history records, the Crown failed to honour Te Tiriti o Waitangi, reflected in laws which misappropriated Māori land for settler use and laws which disadvantaged and placed barriers for Māori expecting to have the same levels of health and advantage of British culture as the settlers (Walker, 1990). As part of the revival of Māori culture and identity, Māori are reclaiming their rights under Te Tiriti o Waitangi, this is reflected in the resurgence of Te Reo (Māori language) in the form of total immersion kura (schools). From preschoolers at Kohanga reo, to kura kaupapa (primary schools and Māori Wananga (Universities), Māori and non Māori now have opportunities to be educated in their native Māori tongue (May, 1999). Other areas of life and culture that Māori are reclaiming include culture through the language and through media such as Māori Radio and television programmes. Māori have also claimed their right to have equitable health; this process started with government commitment to health strategies, such as He Korowai Oranga (King & Turia, 2002), and resources for Māori led initiatives such as Māori community and Marae based health clinics (Durie, 2004a; Durie, 2005a; King & Turia, 2002; Ratima et al., 1999; Wepa, 2005).

Research by Coupe (2005) identified 'cultural disconnection' was a key factor behind high rates of suicide and attempted suicide among Māori. In a 5 year study, Coupe examined the reasons behind suicidal behaviour for Māori and found Māori who attempted suicide were not connected to things Māori in that they did not speak Te Reo and were not connected in a physical sense to their iwi or Māoritanga. She concluded that cultural disconnection is a key risk factor for Māori and suicide as well as poor general health, cannabis use and victimisation. Indeed, research by Waldon (2004) on the health of kaumātua identified that kaumātua who were involved in marae based activities were more likely to identify themselves as having better health, which was contrary to morbidity and

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mortality rates. Reasons postulated for this included feelings of 'usefulness' and having meaningful roles to play within the marae community. Satisfaction derived from being involved with cultural based activities appeared to impact positively on self perceived wellness (Waldon, 2004). Waldon also used the SF-36 tool and concluded that it was a suitable tool for use with Māori kaumātua to assess their health status.

In 1984 a Hui Taumata health conference identified that economic self-sufficiency; social well-being and cultural affirmation were main goals for addressing Māori health status. Three key principles for meeting these goals were integrated development, tikanga Māori and self-determination (Durie et al., 2002). Integrated development involves recognition of Māori philosophy and Māori perceptions of health, by acknowledging these Māori cultural perspectives health strategies were created from a Māori basis of health (Durie, 2005a). The Māori concept of health as defined in the government policy, He Korowai Oranga (King & Turia, 2002), is holistic with a focus on family (whānau) as being the key to providing supportive settings for Māori health including strength, security and self-identity (Durie, 2005b).

Delivery of health services and the provision of funding for these services have also provided for Māori cultural needs with the development of a leading health strategy for Māori, He Korowai Oranga. In 1982, the health model Te Whare Tapa Wha was developed by Mason Durie, which identifies the components of holistic health from a Māori perspective (Durie, 2005a). Te Whare Tapa Wha provides an opportunity for Māori to obtain a sense of ownership and responsibility for their health status through the education of health professionals regarding what Māori see as integral to their health status.

There is a recognised need for promotion of individuals' self-determination and self-awareness when dealing with one's own health status (Nutbeam, 2000). Empowering individuals requires identifying individuals' current skills and ability to manage their health. Once this is established within the context of environment and social structures, health educators are enabled to formulate an appropriate response. For example, the use of health education to deliver health promotion messages and initiatives that empowers the individual, community or population (McMurray, 2007). By researching the health status of Māori nursing students an opportunity for them to engage in an 'empowering' process where they define their own health status is engendered. The information shared by these students may then be used by health educators to ensure an environment that promotes a safer and healthier environment for Māori nursing students.

As the education system in New Zealand is based on a hegemonic Paheka approach to systems and cultural values (Eckermann et al., 2009), the learning environment that Māori nursing students are likely to be exposed to will be one that may not be culturally familiar or comfortable for them. Coupe (2005) identified a lack of access to one's culture is directly related to negative health outcomes. Harris, Tobias, Jeffreys and Waldegrave (2006) also discuss how the concept of racism impacts negatively on how Māori perceive their health. When you combine lack of access to culture for Māori with racism they can contribute to a negative health status for Māori in general and subsequently Māori nursing students. In my experience as a nursing tutor over the last 5 years, Māori nursing students are consistently exposed to racist comments from other nursing students regarding Te Tiriti o Waitangi and Māori health content. Students express how this impacts on them negatively, displaying emotions ranging from extreme anger to tears and a desire to quit the course. These students have also expressed a sudden drop in their enthusiasm and approach to study towards their chosen career of nursing.

Student Health

Gorinski and Abernethy (2005) identified in an investigative case study that tertiary students have specific health needs, and that tertiary institutions employ nurses to work on campus to address health needs such as infectious diseases and immunisations. Tertiary students experience drug and alcohol abuse and other issues such as mental and emotional needs which may require referrals to tertiary counsellors (Gorinski & Abernethy, 2005). As Māori have higher rates of morbidity and mortality, Māori nursing students who attend tertiary institutions should have equitable access to health resources at these institutions. Unfortunately there is no data to confirm whether Māori nursing students do actually access health resources, and if they do what their specific health issues might be.

A study by Kypri, Langley, McGee, Saunders and Williams (2002) used an alcohol disorders identification test to identify a high prevalence of persistent hazardous drinking among New Zealand tertiary students who were living within halls of residence. They identified that this may be related to the move from supervised family situations to being in an environment where students are suddenly free to dictate their own patterns and behaviours amongst their peers. Disconnected from whānau, Māori nursing students living in student accommodation become exposed to these health risks with lifestyle behaviours adding to the risk of adopting unhealthy behaviours.

Converse to the above studies identifying negative health behaviours with students, Shriver and Scott-Stiles' (2000) found in a longitudinal study, nursing students scored higher in their health habits and were more likely to improve when compared to non nursing students. For Māori nursing students engaging in a nursing degree this might mean increased

potential for better health outcomes than when they started studying. Encouraging Māori to take up nursing careers may have an individual impact on their own health.

These findings were partially endorsed by a Canadian longitudinal study completed by Clements, Jankowski, Bouchard, Perreault and Lepage (2002) where they compared health behaviours of nursing and education students to the general population. Although there was no significant difference between the groups of students, nursing students were more likely to be different in health behaviours than the general population. The areas that student nurses demonstrated better health behaviours included, ". . . alcohol use, use of illegal drugs, junk food intake, hours of sleep, and use of seat belts. . ." (Clements et al., 2002, p. 2). This was attributed to the fact that nursing students' curriculum included healthy lifestyle and healthy behaviours; although the authors acknowledged that there was definitely room for improvement for these nursing students with their health behaviours. Indeed a study by Stark, Manning-Walsh and Vliem (2005) revealed nursing students were more likely to improve their self care when given the opportunity to develop self care strategies as part of the nursing course.

Jones and Johnston (1997) in a study on the distress, stress and coping in first year nursing students identified that the work and study environment does impact on mental health. It appears despite a tertiary environment where a culture of unhealthy behaviours exists, nursing students were more likely to have an opportunity to change, adopt and improve their personal health. For Māori students this indicates that nursing is potentially a study pathway that provides more opportunity and positive outcomes for their specific health status, when compared to other courses.

Māori and Māori Nursing Students in Education

Education is an important factor in determining a person's social and economic status. The evidence shows that people with lower levels of education are more likely to have compromised health. The level of education that a person attains will impact directly on job opportunities and subsequently income. Individuals with social issues in early life are more likely to have lower educational achievement (National Health Committee, 1998). Therefore the higher the education the better opportunities someone has for income and better health, such as a tertiary qualification like a degree in the area of health. Education is one of the more easily improved health determinants and exposure to a learning environment also has other benefits such as health promotion messages in nursing programmes that may influence personal health behaviours (National Health Committee, 1998). However, Māori are less likely to achieve at secondary school than non Māori and Māori are more likely to leave secondary school with no qualifications. Adult literacy levels for Māori reflect that over 60% of Māori, Pacific and other ethnic minorities are functioning at a level lower than that required to effectively meet the demands of everyday life (National, Health Committee, 1998).

This is a disturbing trend for Māori and on top of poorer health and socio economic status it does not bode well for the numbers of Māori who will be able to study nursing and move into employment in the area of health. Abbot (1987a, 1987b, 1987c) at a nursing education leadership Hui held in Christchurch in 1991 identified issues relating to recruitment and retaining Māori nurses. This has subsequently been acknowledged by the Nursing Council of New Zealand who has responded with various strategies including the development of "Guidelines for Cultural Safety, The Treaty of Waitangi and Māori Health in Nursing and Midwifery Education and Practice" (Nursing Council of New Zealand, 2005). As a statutory body and a leader in the health sector for nursing the Nursing

Council has made it clear that Māori health issues and consequently Māori nurses within health should be a priority area.

Titus (2001) identified that Māori are less likely to enter into tertiary education and if they do they have a lower completion rate. Bennet (2002) notes that Māori are more likely to be enrolled in Polytechnics rather than Universities, and there are more female Māori graduates than Māori male graduates. Due to the popularity of Polytechnic courses with Māori, they are more likely to receive diplomas and certificates than degrees and post graduate qualifications (Titus, 2001). Considering difference in earnings based on the perceived value of tertiary qualifications, university degree qualifications equate with higher paying jobs (Statistics New Zealand, 1996). The result is Māori having lower education and lower paying jobs, and lower socio economic status.

Historically, Māori have not been encouraged or supported adequately to achieve higher nursing qualifications. Wood (1992) reviewed the original scholarship scheme devised to create Māori nurses from 1900-1910. Initially this scheme was driven by a small group of powerful and influential men who were active in government and the Te Aute College Boys Association. Although individual Māori nurses did make a difference in their small communities, Holdaway (1993) discussed the social, political and economic factors that influenced the scheme and resulted in much smaller numbers of graduates. The factors included assimilating Māori into western ways of health and health beliefs, lack of consultation with wider Māori communities. Māori women recruited from schools to go into training schemes. A lack of support from the wider Pakeha community contributed to hospitals refusing to participate in the training of Māori nurses along with government reluctance to expend resources training Māori nurses (Holdaway, 1993; Wood, 1992).

Eventually the few numbers of Māori women engaging in nursing schemes became an accepted fact and Pakeha nurses moved into the field of nursing Māori communities through District Nurse services. Māori nurses have remained few in number in a Pakeha system of education teaching western health beliefs and models, and where health messages were disseminated to the Māori community mainly by Pakeha nurses (Holdaway, 1993).

Holdaway (1993) commented on the fact that the needs of the Māori women being trained as nurses were not taken into consideration. Although she does not expand on this, one interpretation could be the nature of the learning environment for Māori nursing students. They were referred to as nurse 'assistants'. The intention not to under-train them thoroughly enough so they were not competition for Pakeha nurses wanting employment, and minimise expenditure of resources on them. Even Māori nurses who completed four years of training and passed the State examinations were deemed inferior to Pakeha nurses. Pakeha nurses were sent to clinical placements as morally superior to Māori nurse's, to compensate for the tendency of Māori to be 'unreliable and lazy' (Holdaway, 1993). It is no surprise then that historically Māori women were not as interested in nursing as their Pakeha counterparts. Although the environment that contemporary Māori nursing students are educated in is vastly different from these historical scenarios, some things remain the same. Institutional racism and a predominantly monocultural tertiary system described by Abbot, (1987a, 1987b, 1987c) and Holdaway (1993) were well established in the settlers' years in NZ, and have persisted in various different forms (Curtis, Harwood & Riddell, 2007; Turia, 2006).

Simon (2000) conducted qualitative research with Māori nurses in practice in relation to their education experience. The Māori nurses who participated in the research expressed how important it was for them to be and identify as Māori and experience the use and practice of Māori health

models and practices. Simon (2000) found an identified resistance to a Māori stream of education in nursing, with mainstream students seeing the Māori stream having a lesser education value. Māori nurses who graduated from the Māori stream programme identified that being able to identify as Māori and utilise Māori ways of knowing was affirming and important for developing their identity in practice.

Weaver's (2001) survey of Native American nurses examined the extent nursing education respected the culture and values of students from diverse populations. Results revealed that cultural content was limited and that students expressed a desire for more cultural content seeking it out from other areas. Many respondents reported no support for their cultural identity during their nursing education and struggled with culture shock, cultural differences, stereotypes, racist attitudes and isolation. This situation is similar for Māori within the education environment in New Zealand; Eckermann et al. (2009) found institutional racism and hegemonic systems and practices are evident in mainstream culture.

Another factor impacting on learning for Māori is the learning environment. A study by Jones (1999) looked at the learning environment for Māori when learning alongside Pakeha (the ethnic/cultural majority) in a university setting, sharing the classroom during lectures. For the purpose of Jones's study, Māori and Pakeha students were separated or specific discussions. Jones (1999) identified the persistent need for Pakeha students to access Māori knowing and knowledge through Māori students in the classroom. Pakeha students responded negatively to being separated, reacting with comments clearly indicating they had a right to know to what Māori thought, and how they saw things as Māori. Conversely Māori and Pacific students reported positive feelings and thoughts around being separated as they perceived Māori knowledge was

affirmed and became important, especially for those with traditional knowledge.

Jones (1999) asserted the desire for access to other's culture is another aspect of colonisation, in this study Pakeha access to Māori knowledge. Jones suggested Pakeha engage in learning about their social history and privilege in relation to ethnic others, and accept the disappointment that they should remain ignorant of the other, that is, Māori. If the learning environment Māori nursing students are learning in includes the pressure to become cultural resources of Māori knowledge when it is not their desire, the cultural learning needs of the Pakeha majority become paramount at the expense of the Māori minority. This contributes to the learning environment becoming culturally unsafe, and hence an unhealthy environment for Māori nursing students. The colonisation experienced by Māori has resulted in loss of economic resources, issues of inequality and institutional racism (Curtis, Harwood & Riddell, 2007; Turia, 2006; Walker, 1990). The impacts on health are well documented, and therefore, impact on the health of Māori nursing students (either directly or indirectly), both in and out of their study environment.

A review of nursing programmes across tertiary institutions in NZ by Manchester (2000) confirmed Māori were fewer than 9% of nursing degree graduates in 1998. Manchester spoke to the heads of the nursing schools around the country. She found generally Māori nursing student attrition rates were higher than non Māori and they were more likely to have lower academic qualifications, making them unsuitable applicants for a degree programme. Interestingly, these same comments were made in a study by Abbott (1987) over 20 years ago; perhaps not much has changed in the intervening years despite attempts by various individuals and institutions to make a difference. These findings are also articulated by Gorinski and Abernethy (2007) and Titus (2001) regarding higher Māori

attrition rates in tertiary institutions, reinforcing the need for the implementation of foundation courses. These courses allow individuals who do not have the formal secondary qualifications an opportunity to achieve in secondary school level topics, such as science and English, in preparation for enrolling in a level course. Success in foundation programmes allows students to enrol into courses they would otherwise not have the opportunity to do. These courses offer Māori another way of entering into degree programmes such as health science, and should theoretically reduce attrition rates on these courses.

At Waikato Polytechnic in 1993, the Tihei Mauri Ora programme was initiated within the Diploma of Nursing for Māori students. This programme enabled 'parallel' development whereby a 'stream' based on Māori knowledge and guided by the principles of Te Tiriti o Waitangi creates a safer and more appropriate environment for Māori to study within at tertiary level. This initiative was started as a direct response to issues of recruitment and retention for Māori nursing students and continues today (Simon, 2000).

Other initiatives that have stemmed from Tihei Mauri Ora include more Māori midwives and a health promotion course for teenagers (Simon, 2000). The use of Māori ways of learning, supplying Māori tutors, whānau involvement, Māori support peers and smaller class sizes in this program is an acknowledgement of the specific cultural needs that Māori have, and supports Māori in becoming more successful. An increase in the number of Māori midwives within the community is a measure of success as no evidential data is available at this time.

Other themes in Manchester's (2000) review echoed by Gorinski and Abernethy (2007), included Māori students left a nursing degree programme due to financial constraints, family commitments and Māori

nursing students were more likely to study part-time and taking longer than three years to complete their degree. There was also an overall increase in mature students undertaking nursing degrees, brings with it family issues and responsibilities both for Māori and non-Māori. All of the polytechnics reviewed by Manchester claimed to support their Māori students and increasing their numbers. There were different issues across the board but generally low numbers were attributed to lack of entry qualifications and financial and family issues causing attrition during the course (Manchester, 2000). Manchester's (2000) review reflected similar impressions and themes experienced by the educators however, it did not examine the issues from the students' point of view. Manchester (2000) also acknowledged that the ethnicity of students was not always accurate with reliance upon the heads of nursing schools to know the numbers, and some Māori students not identifying as Māori at enrolment.

Despite foundation courses and the advent of cultural safety in nursing education, barriers still remain for Māori student nurses completing their nursing degrees. Whilst the literature available suggests there is insufficient evidence to make correlative connections about the cause of apparent high attrition rates of Māori student nurses undertaking nursing degrees, I assumed the Māori student nurse cohort are a subgroup to the overall Māori population, and could therefore expect lower health outcomes.

There is some anecdote that nursing students are exposed to health promoting education, therefore they make more responsible health behaviour choices. However, this stance undermines the strong argument that social determinants of health are the largest and most compelling predictor of health status (Blakely et al., 2007). In other words behaviour modification is unlikely to tackle the deeper structural and systemic determinants of health. Such a narrow view means that health status is the responsibility of the student nurse.   In fact if we examine the contexts

in which Māori students find themselves – there are probably disparate playing fields. From my experience, a majority of Māori nursing students are often older, with family commitments on top of study pressures, and are less likely to have participated in tertiary level education so probably find it harder. These are all contributing factors influencing health status over a three year period.

Strategies for Māori

Māori health is firmly linked to health determinants that include education and socioeconomic status. Although reports released by Blakely et al. (2007) indicate socioeconomic Māori and non Māori inequalities over approximately the last 20 years has reduced slightly, inequalities for Māori still remain. Māori for Māori health approaches, and partnership approaches with Pakeha and Māori resources and capital, are now established in an effort to meet Māori health needs using a Māori approach (Ellison-Loschmann & Pearce, 2006). This has required a comprehensive approach as defined by the World Health Organisation as described in The Ottawa Charter, starting with legislation and specific Māori health policy and strategies. Local and community based responses to these policies has allowed for community consultation and buy in to processes aimed at meeting communities' specific needs (Ellison-Loschmann & Pearce, 2006). The creation of iwi providers and developing Māori capacity and capital allow more Māori to be targeted to improve health. A twofold approach that incorporates developing Māori provider health services and enhancing mainstream health services for Māori by providing culturally safe care are part of Māori-led programmes aimed at improving Māori health (Ellison-Loschmann & Pearce, 2006).

Part of capital and capacity building is the encouragement of Māori into nursing and health education. According to Abbott (1987) and more recently Simon (2000), taha Māori approaches have been positively for Māori nursing education. However, there is a lack of research on Māori

nursing students in general and nothing on Māori nursing student health status. As Māori health and Māori education is known to be at risk due to cultural and other factors, the health status of Māori nursing students is an appropriate area to conduct research to identify any links between the impacts of higher education on health for Māori.

Most recently a long time dream envisioned by the National Council of Māori Nurses has been realised. A Bachelor of Health Science Māori (Te Ohanga Mataora Paetahi) programme started in February 2009 based in Auckland and run by Te Whare Wānanga o Awanuiārangi. This initiative utilises a Māori paradigm for learning to improve academic achievement within a kaupapa Māori and tikanga environment (Turia, 2009). Another exciting initiative is the Bachelor of Nursing (BN) Māori launched by Whitireia Community Polytechnic in Porirua, Wellington, 2009. The Māori BN at Whitireia Community Polytechnic is based on Māori paradigm and ways of teaching and learning, and follows in the footsteps of another culturally successful based programme at Whitireia, the BN Pacific (Personal communication, Hemaima Hughes, Programme Leader Bachelor of Nursing Māori, March, 2009).The BN Pacific was initiated in 2004 as a result of work completed by Dr Margaret Southwick and has been very successful with recruitment, retention and success rates. 2009 will see the third year of graduates complete this programme (Southwick, 2007). It is envisioned that the BN Māori will provide sound support for Māori nursing students. One initiative that could be incorporated into the BN Māori is research in partnership by the various groups involved in running the course and interested students on the self measured and clinically assessed health status of students before, during and on completion of the course. This would reveal a more in depth and reflective picture of the health status of Māori nursing students over an entire course. This could be used to also explore why Māori nursing students discontinue their study or how this study journey looks from their perspective.

Conclusion

Lack of information on Māori nursing student health status leaves us with more background material related to Māori health in general and health issues for students in tertiary institutions. Figures for Māori health, Māori education and Māori nurses reflect inequalities where Māori suffer poorer health compared to non-Māori. Māori are also under represented in the health and education professions, due to recruitment and retention issues for Māori. Māori are less likely to enter into tertiary education and if they do they have a lower completion rate (Abbot, 1987a, 1987b, 1987c; Gorinski & Abernethy, 2007; Simon, 2000; Titus, 2001). Various strategies have been initiated in response to these findings around Māori health in general and Māori recruitment and retention in tertiary institutions and nursing programmes. Initiatives such as taha Māori education, Tihei Mauri Ora stream programmes and foundation programmes have had positive outcomes for Māori. However more needs to be done to improve the numbers of Māori successfully entering the nursing workforce and completing tertiary level study.

When we examine all the factors impacting on Māori health, Māori recruitment and retention within tertiary institutions and the journeys of Māori nursing students from as long ago as 1908 through till today; we can see the complexity and challenges which have impacted on individuals and Māori collectively as they seek to engage in a meaningful way within the health industry. Information has been collated and continues to be researched, written about, examined and discussed about and around Māori health and education. However when examining the health status of the present and future Māori nurses, we find little or no concrete information with which to formulate a picture or indeed a true reflection. By obtaining such information a starting point for future reference is obtained and provides a baseline of sorts to instigate further

examination of ourselves as Māori within Pakeha environments. It is an opportunity to identify their health status and to make further recommendations aimed at improving the recruitment and retention of Māori nursing students and ultimately their health.

Chapter 3: Research Design and Method

This chapter describes the research design and research process of this study and the methods used for the purposes of transparency and replication. The research design is explained for its applicability for the research area and the aims and objectives clearly identified. The process of recruiting the participants and other considerations of recruitment are discussed including accessing information on the actual number of Māori nursing students. Data collection including a description of the tool used and subsequent alterations to the tool are described along with the inclusion of demographics and the method of data analysis. Ethical considerations and establishing of validity and reliability are also discussed, and a summary of the main points of this chapter are provided.

Research Design

This research uses a cross-sectional survey to collect data. Cross-sectional surveys are the most common type of surveys and are more quantitative in approach than qualitative. They provide a structured approach to data collection that allows for the systematic comparison of variables against each other (Greenwood, & Axford, 2004; De Vaus, 2002; McKernan, 1991; Minichiello, Sullivan). Cross-sectional design makes observations at one single point of time, or in this case the survey participants' responses to the questions at that moment (Cresswell, 2003; McKernan, 1991; Minichiello et al., 2004; De Vaus, 2002).

This survey was conducted using the SF-36 self assessed health status tool. This survey is designed as a questionnaire that has two distinct sections, one focusing on physical health and the other focusing on mental and emotional health (Ware, 2000). The physical health section consists of eight questions

which are measured using an ordinal Likert scale with various responses such as "poor to excellent" and "much worse than a year ago to much better than one year ago". Question one asks the participant to identify their general health and question two asks the participant to identify their health compared to one year prior. Question three looks at physical activities during a typical day including, running, vacuuming, lifting, climbing stairs, walking and bathing. Question four asks about physical health and its impact on work. Question five is about mental health and looks at the impact of emotions such as depression and anxiety on work. Question six asks about how physical and emotional health has impacted on normal social activities. Question seven addresses levels of pain and question eight the impact that pain may have had on work. Question nine examines feelings such as sadness, energy levels, emotional fatigue and tiredness, Question ten looks at the impact of physical and emotional health on work activities. Question eleven asks about levels of illness and question twelve looks at spiritual health. I have added two extra questions, relating to spiritual, cultural identity, and whether or not their cultural needs had been met (see Appendix A).

As there is widespread acceptance that Māori health is influenced by the wider social environment including health determinants and ongoing effects of colonisation; an approach that considers a wider environmental approach to Māori health is required (Blakely, 2004). As the survey has a specific set of questions, the comparison of variables can be enhanced with the use of demographic data included in the analysis. Demographic data in this survey included the following:

- Year in the nursing degree programme
- Institution enrolled at
- Ethnicity
- Iwi
- Age
- Highest entry qualification
- Relationship
- Dependent children
- Main source of support

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- Source of income

- Household income

Comparing variables within the survey allows the examination of possible links between variables. For example, the data might reveal that students with children and family responsibilities identify higher levels of mental or emotional stress. This evaluation of possible correlations is based on logical and progressive deduction and evaluation of characteristics (De Vaus, 2002).

Benefits and Rationale for Using a Cross-Sectional Survey

Factors influencing the choice of a cross-sectional survey included time, cost, simple management of the research and most importantly this survey allows the participants to engage in a self assessment tool (Cresswell, 2004; De Vaus, 2002; McKernan, 1991; Minichiello et al., 2004). Although the questionnaire's suitability for measuring spiritual health is debated this tool has been successfully used when applied to Māori (Durie, 2001). Scott et al. (2000) used the SF-36 to examine whether or not the survey was suitable for the use of Māori and Pacific when compared to New Zealand Europeans. The fact that the survey has two distinct components of physical and mental did not appear to match with Māori and Pacific models of health that do not distinguish these two dimensions of health as being singular or separate. What Scott et al. (2000) discovered was Māori under the age of 45 years were able to use the SF-36 to describe their health in both physical and mental categories. However, Māori over the age of 45 years did not clearly differentiate between the physical and mental health components. Simple management of the research process is also a consideration as this was my first piece of research and hence engaging in a complex or drawn out research project would be beyond my limitations at present.

Other considerations need to be considered when engaging in research with Māori participants, such as the Treaty of Waitangi and a cultural approach to information sharing that leans more towards qualitative methodologies and

methods (Durie et al., 2002) Although this study does not qualify as kaupapa Māori research according to the process identified by Tuhiwai-Smith (2005) and Bishop (2005), it does retain some of the factors they (and other Māori nurses educators) described. For example I identified the topic being researched as an issue that I have a personal interest in as a prior Māori nursing student and also as an educator and a mentor of Māori nursing students. The acquisition of knowledge may be seen as part of obtaining some power over the processes that impact on Māori. It is vitally important that this research provide knowledge identified by Māori to improve the outcomes for Māori nursing students. As the researcher I acknowledge that this study is just one small part of adding to the knowledge around the health of Māori nursing students.

This study also retains some of the approaches to kaupapa Māori research identified by Mead (2003), such as having an approach embedded in the principles of Te Tiriti o Waitangi. These principles of participation, protection and partnership were identified by the Royal Commission on Social Policy (1988), and more recently He Korowai Oranga (King & Turia, 2001). These principles are reflected in this study by consultation undertaken with Wharangi Ruamano (Māori Nurse Educator Group) and researching an area of significance not only for Māori nursing students, but also for Māori nurses and nurse educators.

Aims and Objectives

There were three main aims of this research study

1. Obtain a 'snapshot' of Māori nursing students' health status.
2. Contribute to the knowledge about the health of Māori nursing student undertaking a nursing degree programme.
3. Provide information that may be used to justify support programmes and resources aimed at supporting Māori nursing students.

Participants

The inclusion and exclusion criteria were that participants identified as New Zealand Māori, and were enrolled in a nursing degree programme at a NZ tertiary institution at the time of the study. Māori nursing students on other nursing programmes such as postgraduate or care assistant programmes were excluded as they did not match the criteria for the study. It was anticipated that participants' ages would range from approximately 18 years old (secondary school leavers) and above.

Determining the exact number of Māori students was difficult, first because ethnicity data can be problematic, as anecdotally not all Māori nursing students officially or openly identify as Māori. Second, obtaining information about the exact numbers of Māori students enrolled in programmes met a number of barriers, such as heads of programmes not willing to release this information. Wilson's unpublished survey on Māori nursing students (n = 114) was used as a guide to anticipate approximately the number of students that would respond to the survey – that is, between 80 and 120. As it was difficult to establish the number of students enrolled in a nursing degree who identified as Māori, a response rate could not be determined.

Recruitment strategy

The recruitment strategy used involved utilizing the Nursing Educators of the Tertiary Sector or (NETS) group. NETS membership includes representation from the 16 institutions in NZ currently offering a nursing degree programme. NETS also has Māori representation with an associated group of Māori educators from the various institutions called Wharangi Ruamano.

A letter describing the study and asking for support with the distribution of the survey questionnaires was sent to Wharangi Ruamano for comment and then presented to the wider NETS group at a meeting by the National Wharangi Ruamano representative. A letter was also sent to the Chairperson of NETS

requesting support for the study and permission to publish the findings on the NETS website on completion. Both Wharangi Ruamano and NETS agreed to support the distribution of the questionnaires.

The questionnaires were distributed to the various institutions with a covering letter requesting that the surveys be distributed to Māori nursing students. The surveys included an information sheet on the front that included a statement that the research had ethical approval and contact numbers if they had any queries (see appendix B). Not all the surveys were distributed in all the institutions. Reasons offered by two institutions were Māori nursing students already involved in research, and the surveys not 'being approved' for distribution until after the due date for return.

Other factors impacting on the distribution of the surveys included the following:

- Not all eligible students were easily accessible as some students studied part–time, and students would be in different locations during clinical practice experiences.
- The researcher relied on the head of the nursing programme or the delegated person to identify Māori nursing students.
- Reliance on the nursing schools' representatives to distribute the surveys to Māori nursing students within the scheduled time frame. This proved to be a larger hurdle than originally anticipated and impacted on the number of nursing schools participating in the programme.

Data Collection

The data were collected by the students posting the survey back to the researcher in a stamped addressed envelope. Responses were still being received up to 4 weeks past the specified deadline so the researcher extended the return time to accommodate this.

Survey questionnaire

The survey tool used to collect data was an adapted SF-36 that included three culturally related items (see Appendix A). The SF-36 is a standardised questionnaire derived from a larger set of questions used in the US medical outcomes study in the mid 80's. It is now used internationally as an acceptable individual health status measuring tool (Ware, 2000).

The SF-36 has eight dimensions of health including, general health, mental health, physical functioning, social functioning, physical role limitations, emotional role limitations, vitality and bodily pain (Ware, 2000). The advantage of the SF-36 is that it is simple to administer and interpret and when compared to other available tools for health measurement, the SF-36 is not so broad that it becomes an overly complex tool (Ware, 2000). The SF-36 has also been validated as an appropriate tool able to reflect a Māori view of health (Durie, 2005a).

The SF-36 questionnaire contains 12 main questions with sub-questions that add up to 36 items that participants respond to. The participants choose from a number of graded options their response to a particular question. For example, Question 1 asks "In general, would you say your health is; "Excellent, Very Good, Good, Fair or Poor", participants consider a response from the range of options where they can locate themselves. The selection of choices also allows an extremely positive stance to a neutral one to an extremely negative one, and reduces the potential for bias to one extreme or the other (Ware, 2000). This format is referred to as an ordinal Likert scale and allows the measurement of individual's attitudes by summarizing items as scores to determine the respondent's agreement or disagreement to the measure (Polit & Beck, 2008).

Adaptation of SF-36 questionnaire

The SF-36 tool printed off the internet was developed by RAND HEALTH (www.rand.org/health/surveys_tools/mos/mos_core_36item_terms.html).   The

authors claim their SF-36 may be altered to suit the purposes of a particular research area, such as this research with Māori nursing students, as long as the tool's creators are acknowledged One thing the SF-36 does not have is questions relating to culturally specific indicators. Durie (2005a; 2004a, Durie et al., 2002) identifies that culture has a huge impact on health status.

Altering this survey involved adding a question about cultural identity derived from Durie's framework on cultural identity (Durie et al., 2002). A question related to cultural needs being met and one about spiritual wellbeing was also included. By including these questions Māori perspectives of health, in particular spiritual health linked to culture and identity is acknowledged in this research in a practical way. These cultural categories suited the format of this survey, as Durie provided four options (translating into secure, positive, notional or compromised cultural identity). A space was included at the end of the questionnaire to allow participants to make their own comments in case they preferred to write something in their own words.

Including variables from a wider context is consistent with knowledge around Māori health that is inclusive of mental, spiritual, physical, mental and cultural wellbeing within a family context (Durie, 2005). Conversely western medicine considers health within a biomedical context that focuses predominantly on physical or physiological indicators of health (Tipene-Leach, Abel, Haretuku & Everade, 2000). The NZ health system is dominated by biomedical approaches to health meaning Māori health needs and issues are not always being addressed. This is also reflected in research that has revealed Māori require their own unique perspective and ways of doing things for a difference to be made (Tipene-Leach, Abel, Haretuku & Everade, 2000).

Demographics

The demographics page was placed at the beginning of the survey. Lodico, Spaulding and Voegtle (2006) identified demographics provide more detailed information about participants. For example, this study is about Māori

nursing students doing a three year full-time, or a five year part-time programme. Age, family status, and income were also used in the analysis.

Data Analysis

The data were inputted into the SPSS 15.0 for Windows data analysis software programme, which was used to generate descriptive statistics, component scores, and correlations. The results of the SF-36 are presented as two meta scores: The Physical Component Summary (PCS) and the Mental Component Summary (MCS) (Utah Department of Health, 2001; Ware, Kosinski & Keller, 1996). The higher the SF-36 scores, the better the level of functioning. An algorithm was used to score and normalize the items. The PCS and MCS have a range of 0-100 and the mean score is 50, indicating an average health status. People who score 40 function at a lower level than 84% of the population (one standard deviation) and people who score at 30 are functioning at a level lower than 98% of the population (two standard deviations) (Utah Department of Health, 2001; Ware et al., 1996).

Measures, such as Cronbach's Alpha were used to measure the survey's internal reliability, while Spearman's Rho rank correlation coefficient (Spearman's Rho) measures correlations between variables. Significance levels were also determined. This is discussed in more detail under validity and reliability. Averages were interpreted as the mean score for PCS and MCS. The original MOS study (Ware, 2009) demonstrated that with age people score lower on the PCS and higher on the MCS. Difference scores refer to the difference between an individual's score and the average mean score for their age group. Therefore, a positive score indicates health that is above average, while a negative score indicates health below average.

Thematic analysis

As this study was a cross-sectional survey in the form of a questionnaire, initially qualitative data analysis was not included in the methodology. There was

a space left for comments for participants at the end of the questionnaire, however the level of response from participants was not anticipated. Of the surveys returned 36 contained comments at the end in the space provided, that is approximately half the respondents. As all the data shared by the participants was considered important to the study, the comments were analysed according to a qualitative thematic analysis process.

Using the free form analysis process described by Annells and Whitehead (2007) the qualitative data was coded, grouped and categorised. The comments were scanned for meaning and represented with descriptive codes. This 'fractured' data was then organised into categories and then grouped according to their considered importance. This process is referred to as "fracturing, grouping and gluing" (Annells & Whitehead, 2007, p. 143).

Ethical Considerations

This study was approved by the Massey University Human Ethics Committee: Northern (Protocol MUHECN 07/009). The tertiary institution that I worked at also required the study to be approved by their research ethics committee before allowing the surveys to be distributed to any participants. The ethical issues addressed included the following.

Consent

Consent by participants was implied by the questionnaire being filled out and returned. This was made explicit in the cover letter to the questionnaire.

Anonymity

Anonymity was ensured, by not asking participants for their name and the questionnaire returned in a supplied addressed envelope. Identification of the institution asked for so the number of tertiary institutions represented could be

identified. This could be linked to individuals; however, institutions were coded when data were aggregated to eliminate the possibility of students being able to be identified. Any identifying data were removed from the comments section, and participants were not identified by specific data such as iwi or institution in the final write up. Identifying an individual from demographic data would be highly unlikely. According to Statistics NZ (2008) there are 65 iwi and even more hapu in NZ, and nursing students from them are spread out over 16 institutions within NZ.

The issue of anonymity was challenged by at least one institution that identified that the demographics part of the study may allow some students to be identified by their iwi, hapū, age, location, and number of children or marital status. As the results were anonymous and the researcher was the only person looking at the raw demographic data, and the data were aggregated, it was unlikely that this would be an issue. The concern expressed around anonymity also challenged the ethical and professional boundaries expected to be upheld by myself as the researcher. As a registered nurse conducting research I am not only professionally bound by registration with the Nursing Council of NZ and the registered nurse competencies (NCNZ, 2008) but also the Privacy Act 1993 preventing information relating to a clearly identified individual from being released (Parliamentary Council Office, 2008), and by the conditions of ethical approval.

Data storage

Data were stored in a locked filing cabinet only accessible by the researcher and the supervisor. On completion of the study the data will be held by the School of Health and Social Services in Albany, and destroyed according to their policy after five years.

Conflict of interest

Because some of the participants were students at the institution I lecture at, care was taken to ensure that I distanced myself from the data collection

process as much as possible. This involved different Faculty members distributing the surveys to participants and explaining that completion of the same was entirely voluntary and anonymous.

Establishing Validity and Reliability

The SF-36 is a multipurpose short form survey noted as being a comprehensive tool, for measuring individual's health status. It is psychometrically sound and asks standard questions selected from the SF-36 health survey that includes generic health concepts and records standardized responses. Because it is self administered it allows the participant to control the information sharing process. (Utah Department of Health, 2001; Ware, Kosinski & Keller, 1996).

Measuring internal reliability was achieved by applying Cronbach's alpha also known as the co-efficient alpha. The normal range of values is between 0 and 1, therefore the higher the value the higher the internal consistency (Polit & Hungler, 1991). A high level of internal reliability of the questionnaire was achieved with a Cronbach's Alpha of .902. Central tendencies were identified including distribution, mean and standard deviation for each Likert scale item in the SF-36. Because of the Likert scale method, non-parametric correlation was appropriate for analysis, and Spearman's Rho (r) was used to identify significant correlations between selected variables, with a significance level of between 0.01 and .05 (2 tailed).

Other measures such as the use of the SPSS 15.0 data analysis programme reduced the possibility of researcher errors as it provided a medium in which to examine the data within a pre determined format. Practical steps such as cleaning the data, checking and rechecking the data that was entered into the

SPSS 15.0 programme also reduced the possibility of manual error during data entry.

Conclusion

This study examined a little researched area, the health of Māori nursing students and a cross-sectional survey was conducted. The questionnaire achieved good internal reliability. Data were obtained using the validated and widely used SF-36 self administered survey. Requests for participants from sixteen tertiary institutions offering a nursing degree in NZ were included in the study and responses were received from students at thirteen of these institutions with 75 returned. The response rate could not be determined as the actual number of Māori nursing students could not be determined. Data were inputted using the SPSS 15.0 for windows programme. Variables were compared and co-correlated for significance using Spearman's Rho and demographic data was used to provide a wide coverage of the general health status as identified by Māori nursing students. Discussion of the analysis, results, and recommendations will be addressed in the following chapters.

Chapter 4: Results

Demographics

75 (n = 75) students from 13 of the 16 institutes returned completed surveys with the majority of respondents coming from 4 tertiary education institutions (see Figure 1). Respondents were mostly evenly spread over the 3 years of the BN programme, with 38.4% of students in Year One. Just under 80% of respondents had secondary or sub degree qualification, while only 4.1% had an undergraduate qualification. Eleven percent had no qualification and 4.1% identified their education as other (Table 1).
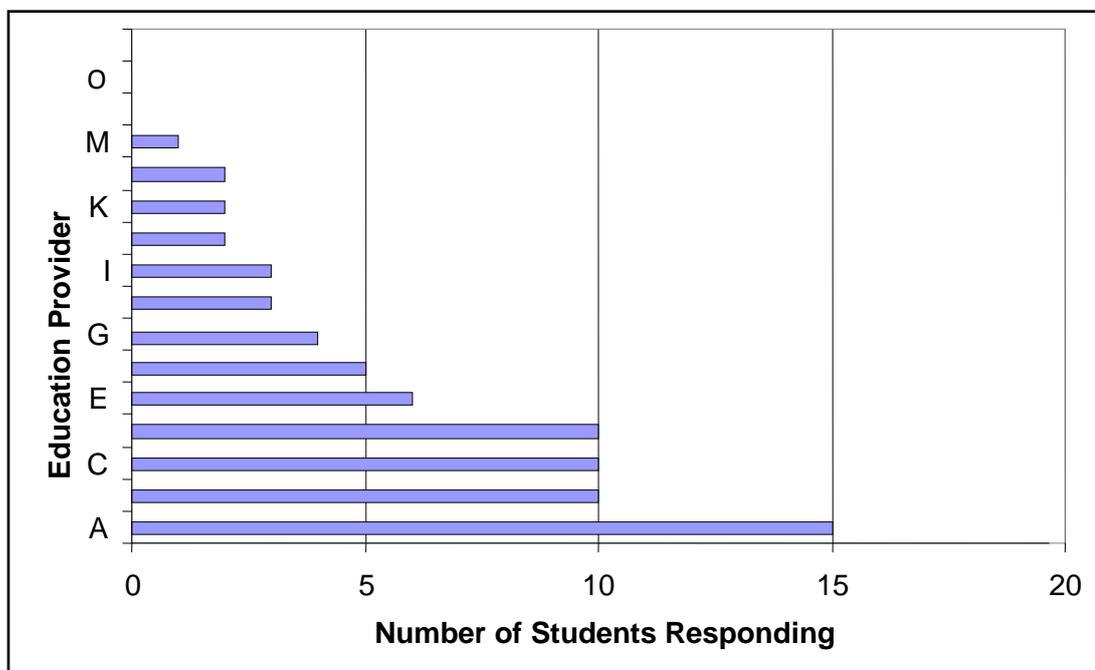
Figure 1. Number of students responding per education provider.

Just over half the respondents (54.8%) identified solely as Māori ethnicity and the rest identified as Māori and another ethnicity. The highest age group represented was the 25-34 years age group (41.1%) then 35-44 years (31.5%) then the under 25s at (15.1%) and over 45 years (8.2%). A large majority of respondents were female (84.9%) and only (11%) identified as male (see Table 1).

Only 27.4% respondents were single, the rest identifying as single parents with children, in a relationship or in a relationship with children. Over half (53.4%) of the respondents had dependent children. 65.8% of respondents identified multiple sources of support, while 19.2% identified their whānau as their main support, 8.2% identified their partner as their main support, and 5% identified friends and others. Main sources of income were identified as other (30.1%), income support (23.3%) and student allowance (21.9%). Only a small proportion (6.8%) of respondents relied on student loans, and 17.8% worked for wages. A total of 46.6% of respondents had a personal income of over $20,000, 38.4% received between $11,000-$20,000, and 8.2% receiving equal to or less than $10,000 (see Table 2).

Table 1

Demographic Profile of Participants

	Percentage (Number)
Year in Programme	
Year 1	38.4%(28)
Year 2	24.7% (18)
Year 3	27.4% (20)
No response	9.6% (7)
Ethnic Identity	
Sole Māori	54.8% (40)
Māori & other	45.2% (33)
Age	
<25 years	15.1% (11)
25 – 34 years	41.1% (30)
35 – 44 years	31.5% (23)
>45 years	8.2% (6)
No response	4.1% (3)
Gender	
Female	84.9% (62)
Male	11.0% (8)
No response	4.1% (3)
Highest Entry Qualification	
No formal qualification	11.0% (8)
Secondary qualification	27.4% (20)
University entrance	21.95 (16)
Sub-degree qualification	28.8% (21)
Undergraduate qualification	4.1% (3)
Other	4.1% (3)
No response	2.7% (2)

Table 2

Relationship Status and Supports

	Percentage (Number)
Relationship Status	
Single	27.4% (20)
Single with children	35.6% (26)
Relationship	16.4% (12)
Relationship with children	20.5% (15)
Dependent Children	
Yes	53.4% (39)
No	46.6% (34)
Source of Support	
Partner	8.2% (6)
Whānau	19.2% (14)
Friends	2.7% (2)
Other	2.7% (2)
Multiple sources	65.8% (48)
No response	1.4% (1)
Main Source of Income	
Student Allowance	21.9% (16)
Student Loan	6.8% (5)
Wage/Salary	17.8% (13)
Income Support	23.3% (17)
Other*	30.1% (22)
Personal Income	
≤$10,000	8.2% (6)
$11,000 - $20,000	38.4% (28)
>$20,000	46.6% (34)
No response	6.8% (5)

Note: *other includes other forms of income, such as scholarships/grants and family

Health Compared To One Year Prior

The respondents identified their health was poorer compared to the year prior. The mean was 56.51 with a standard deviation (SD) of 21.26. When compared to the mean, nearly 70% of respondents identified their health as being approximately half as good or worse when compared to a year ago (Table 3 & Figure 2).

Table 3
Health Compared to One Year Prior

	N	Minimum	Maximum	Mean	Std. Deviation
HealthCompared1Year	73	25.00	100.00	56.5068	21.25711
Valid N (listwise)					
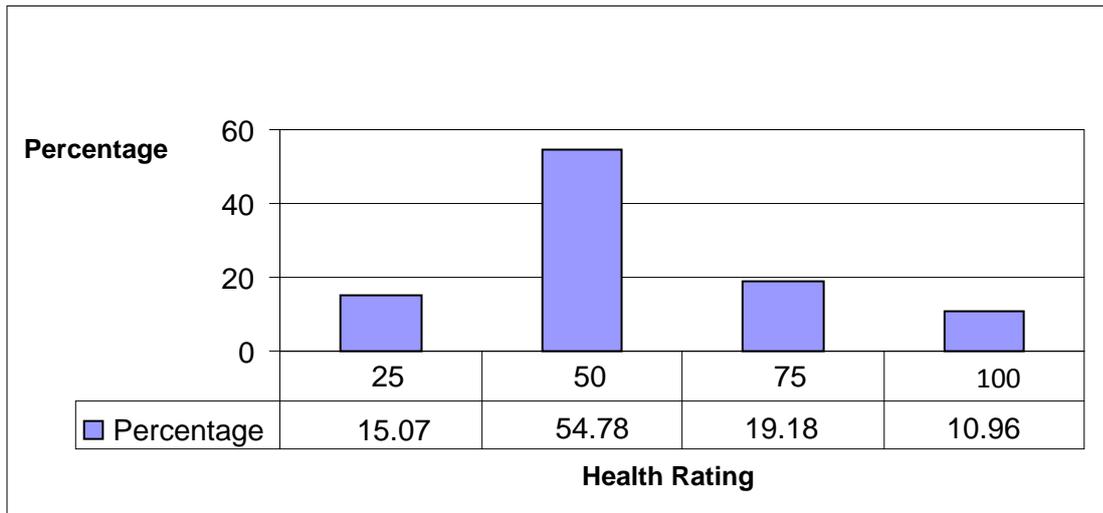
Figure 2. Distribution of health rating compared to one year prior.

Figure 2 shows the distribution of respondents reporting lower health status in the 0-50 range, and better health status in the 50-100 range. This graph shows that just over 69% of respondents considered their health worse compared to a year ago, while just over 30% thought their health was the same or better than a year prior.

Relationship of Student Demographics to Cultural and Spiritual Variables

Correlations were undertaken with the following variables: spiritual health, cultural identity, cultural needs met, year in programme, age, dependent children, relationship status and personal income. Significant correlations were found between cultural identity and cultural needs being met (r = .357, p = .002). That is, those with a stronger Māori cultural identity were more likely to have their cultural needs met. Relationship status and age was positively correlated (r = .295, p = .011) demonstrating that older Māori nursing students were more likely to be in a relationship. The other significant correlation was between those in a relationship having a higher income (r = .378, p = .001), while a significant negative correlation was found between relationship status and dependent children, with a correlation coefficient (r = -.416, p = .000) (Table 4).

Table 4

Relationship of Student Demographics to Cultural and Spiritual Variables

Variable		Spiritual Health	Cultural Identity	Cultural Needs Met	Year in Programme	Age	Dependent Children	Relationship Status	Personal Income
Spiritual Health	r_s	1.000							
	p	-							
Cultural Identity	r_s	.182	1.000						
	p	.123	-						
Cultural Needs Met	r_s	.090	.357**	1.000					
	p	.449	.002	-					
Year in Programme	r_s	.154	-.141	-.099	1.000				
	p	.192	.233	.405	-				
Age	r_s	-.167	-.186	.151	-.131	1.000			
	p	.157	.116	.204	.269	-			
Dependent Children	r_s	.079	.077	-.174	.237*	-.213	1.000		
	p	.508	.520	.142	.043	.070	-		
Relationship Status	r_s	-.088	.025	.226	-.229	.295*	-.416**	1.000	
	p	.461	.831	.054	.051	.011	.000	-	
Personal Income	r_s	-.006	.193	.137	-.155	.034	.026	.378**	1.000
		.962	.101	.248	.191	.772	.825	.001	-

Note: Spearman's Rho Correlation
** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Physical Component Score Correlated To Mental Component Score

The PCS and MCS scores were significantly correlated with all components except physical functioning, which was not significantly correlated with the MCS. It was noted that the internal reliability of the social functioning scale (r = .579) was lower than the accepted >.70 (see Table 5).

Table 5

Summary of SF-36 Scales and Physical and Mental Component Summary Measures

Scales	Correlations[a]		Number		Measures		
	PCS	MCS	Items	Levels	Mean	SD	Reliability
PHYSICAL HEALTH							
Physical Functioning	.538**	.138 (p .258)	10		84.8	22.1	.925
Role Functioning - Physical	.814**	.442**	4		72.9	37.9	.872
Pain	.759**	.444**	2		83.3	22.1	.868
General Health	.672**	.583**	5		61.9	21.3	.863
MENTAL HEALTH							
Vitality	.474**	.713**	4		52.6	21.1	.822
Social Functioning	.443**	.779**	2		63.3	22.1	.579
Role Functioning – Emotional	.403**	.858**	3		54.8	42.4	.807
Emotional Wellbeing	.486**	.829**	5		69.5	19.5	.864

Note: [a] Spearman's Rho Correlation
** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Differences between PCS and MCS

The PCS mean was higher at just under 80 and the MCS scored a mean of 60. All individual areas comprising of physical functioning, role functioning physical, pain, general health, vitality, role functioning emotional, emotional wellbeing and social functioning scored above the mean of 50 (Figure 3). The highest areas were physical functioning, pain and role functioning and lowest score for general health in the PCS. However, MCS scored lower than for the PCS with the means for vitality and role functioning-emotional just over 50. Despite identifying health status above the standard mean over all students identified that their health was worse when compared to a year ago (see Table 6). No correlation was found between the cultural health and cultural needs being met with PCS and MCS, although cultural health was positively correlated with cultural needs being met (see Table 7). However, spiritual health was positively correlated with PCS and MCS.
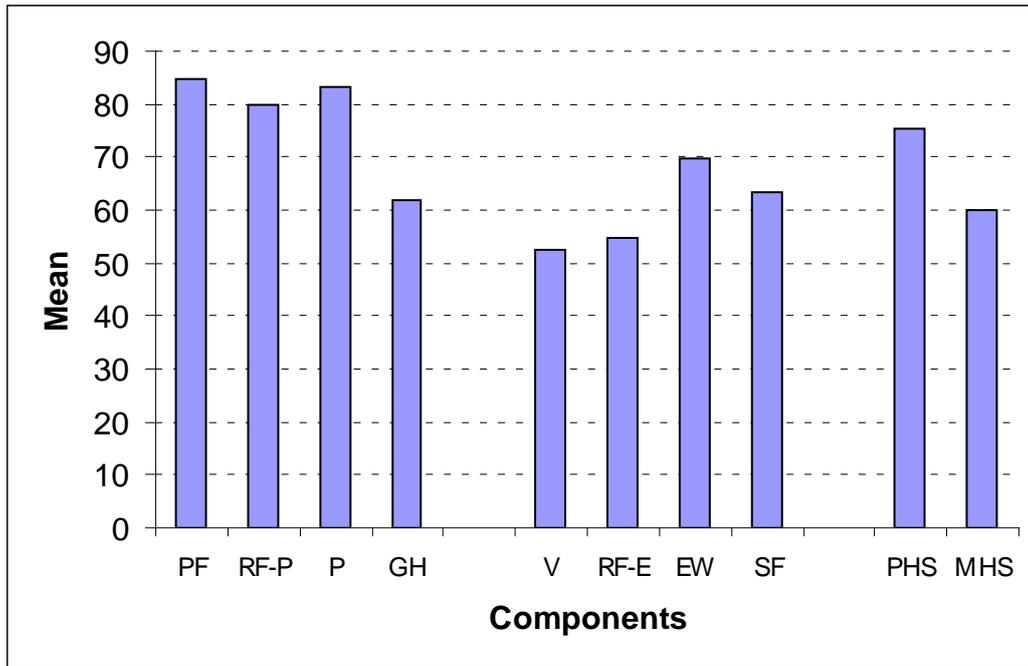
Figure 3. Mean scores for each component and the physical health and mental health scores.

Note: 0 = Least level of functioning or wellbeing; 100= Best level of functioning or wellbeing

PF= Physical Functioning; RF-P = Role Functioning- Physical; P = Pain; GH = General Health; V = Vitality; Role Functioning – Emotional; EW = Emotional Wellbeing; SF = Social Functioning; PHS = Physical Health Score; MHS = Mental Health Score

Table 6

Differences between Mental Health and Physical Health Component Scores

		N	Mean Rank	Sum of Ranks	Z
Mental Health Score	Negative Rank	54[a]	39.07	2110.00	-
Physical Health Score	Positive Ranks	15[b]	20.33	305.00	
	Ties	0[c]			
	Total	69			
Mental Health - Physical Health					-5.396[d]
					.000**

Note: Wilcoxin Signed-Rank Test - [a] Mental health<Physical health; [b] Mental health>Physical health; [c] Mental health=Physical health; [d] Based on positive ranks; ** Asymp. Sig. (2-tailed)

Table 6 shows the differences in MCS versus PCS scores with a mean of 39.07 for negative scoring and 20.33 for positive scoring. Mental health components scored higher for negative ranks compared to physical health.

Table 7

Correlation of Physical & Mental Health Component Scores with Cultural and Spiritual Health

		PCS Score	MCS Score	Cultural Identity	Cultural Needs Met	Spiritual Health
PCS	r	*1.000*				
	p	.				
MCS	r	0.53**	1.000			
	p	0.00	.			
Cultural Identity	r	0.03	-0.01	1.000		
	p	0.82	0.92	.		
Cultural Needs Met	r	-0.18	-0.17	0.36**	1.000	
	p	0.13	0.15	0	.	
Spiritual Health	r	0.32**	0.44**	-0.18	-0.09	1.000
	p	0.01	0.00	0.12	0.45	.

Note: Spearman Rho **. Correlation is significant at the 0.01 level (2-tailed).

Table 7 shows that no correlation was found between the cultural health and cultural needs being met with PCS and MCS, although cultural identity was positively correlated with cultural needs being met. However spiritual health was positively correlated with PCS and MCS.

Summary of quantitative data

Respondents represented all three years of study on the nursing degree programme with the large majority having no undergraduate degree education, predominantly female and falling between the ages of 25-44 years of age. Approximately half identified solely as Māori. Two thirds of respondents identified as having children and or being in a relationship and three quarters of respondents relied on whānau, benefits or student allowances for financial support.

Overall respondents identified that their health was worse than a year ago and older Māori participants were more likely to be in a relationship and more likely to have a higher income. Respondents were more likely to rate their mental health as worse than their physical health. Physical health components of most concern were general physical health and pain. The areas of most concern for respondents' mental health were vitality and role functioning – emotional. No correlation was found between the cultural identity and cultural needs being met with the PCS and MCS, although cultural identity was positively correlated with cultural needs being met. However spiritual health was positively correlated with both PCS and MCS. Respondents were given the opportunity to comment on the survey to make their own comments regarding anything they wished to share. 35 participants made comments on the survey, and off those 24 were related to the research question. These comments were analysed and used to support the discussion in Chapter 5.

Qualitative data

As previously mentioned, a space was left on the survey at the end for respondents to leave comments they thought were relevant to the study. Thirty seven surveys were returned with comments. Of these thirteen either thanked the researcher for initiating the study or were personal wishes of good luck for the research for the study. The remaining twenty four surveys included comments related to the study questions.

Fractured coding according to the process described by Annells and Whitehead (2007) resulted in the following initial units or codes:

- Anaemic, back pain, being separated, brings me down, cousins and aunties, culturally isolated, culture, depression, desire, deteriorated, determination, diabetes, difficult to access, drive, eating habits, emotional health, emotional stress, emotional wellbeing, enjoyed doing this research, enjoyed filling out this survey, expensive, family, family history, fantastic support, financial and time constraints, flatting/living situations are an added stress/strain, flu, hapu,

health, healthy food, heart disease, help and support, hinengaro, identity, IUD- Mirena, hypertension, iwi, karakia, life time dream, little support, Māori, Māori health, heart disease, medical issues, morning walks, motivation, my health has deteriorated, no actual support, obesity, on my own, overweight, papakainga, physical exercise, physical pain, prayer life, sacrifices, support, te reo, thank you, think about my health, tinana, tiredness, Tiriti, unhealthy, very little support, very supportive, waiata, wairua, whaea/kuia, whānau, whenua.

These fractured codes were then categorized and ordered into the following groups:

- **Māori culture and health** was categorised from the following fractured codes: whānau, whenua, wairua, tinana, hinengaro, family, Māori health, cousins and aunties, prayer life, whaea/kuia, Tiriti, hapu, iwi, papakainga, karakia, waiata, identity, te reo, and culturally isolated
- **Support and isolation** was categorised from: whānau, fantastic support, help and support, no actual support, very supportive, very little support, financial and time constraints, on my own, and being separated
- **Mental health** (positive and negative) was categorised from: emotional wellbeing, emotional health, depression, emotional stress, sacrifices, brings me down, motivation, desire, drive, determination, life time dream
- **Physical health and nutrition** was categorised from the following: hypertension, obesity, overweight, physical exercise, family history, heart disease, diabetes, IUD-Marina, physical pain, flu, back pain, medical issues, health, anaemic and tiredness, morning walks, healthy food, expensive, difficult to access, financial and time constraints and eating habits
  - **General health** was categorised from: my health has deteriorated, unhealthy and flatting/living situations are an added stress/strain
  - **Acknowledgment** was categorised from the following: enjoyed filling out this survey, think about...my health, enjoyed doing this research and thank you

As the focus of the study was Māori health it was considered to be the most important grouping. Because Māori culture is so closely interwoven into Māori

health these two groups were combined into ***Māori culture and health. Support and isolation*** was the next group as it was intrinsically linked to Māori culture and health. ***Mental health*** was next group as the survey revealed that the participants identified their mental health as being worse than their physical health. The mental health category included some positive aspects as well as negative. ***Physical health and nutrition*** was next followed by***, general health.*** I have included ***acknowledgement*** as it highlighted for some participants this research made them feel good. This could be related to positive feelings about research that was Māori led for Māori, and acknowledged Māori nursing students were important enough to warrant research into their health.

Māori culture and health

Identity

Although the demographic section of the survey included ethnicity, hapu and iwi, some of the participants felt it was important to also comment on their identity as Māori. This comment from one participant identifies that their marriage to a Māori and their heritage as a Māori was something they wished to share;

> *"I am married to a Māori, I feel Māori through my paternal grandfather who was adopted by a pakeha"*

Other participants commented on the importance of their Māori heritage regardless of their cultural upbringing;

> *"I am adopted, my birth mother died in 1977 when I was 13 years old. I never met her. I found out her identity when I was 35 years old. I was thrilled to learn she was Māori, through the closed adoption laws. My parents who were wonderful were/are, (Mum is deceased) are of European background ethnicity. So I never had the opportunity to identify with Māori culture. It is too little too late I'm afraid. But I will never deny my Māoridom – it is within..."*

It is rather poignant that the importance of culture to self identity is identified by

this participant who was not bought up to identify with Māori culture. However reference to their Māori heritage is integral to who they are, and the support they get from other Māori nursing students.

> *"...Not having much to do with the Māori cultural world should not limit me, because although I'm not active Māori, I am Māori inside and out. Kia Ora"*

> *"...I love being Māori and I am my people..."*

The importance of knowing ones historical roots was also commented on

> *'I am currently trying to find out more about my history and I am really interested in learning more about Māori culture/Māori health"*

One participant commented on a negative aspect of being identified as Māori and being used as a 'cultural resource' to enlighten others about Māori ways of being and seeing the world;

> *"At my stage 4 clinical placement, I was singled out to answer a "Māori" question. I felt embarrassed..."*

Māori culture and te reo

Another participant referred to the cultural aspect of language, although they did not identify whether or not they speak it, they did acknowledge the importance of it in their life and being able to access it through media outlets specifically designed for the dissemination of Māori culture such as radio and television. This takes on forms of special significance when a participant identified at times they are the only forms of Māori they interacted with, other than their child.

> *"In regards to Q.13, I experience a combination of the first two answers. I have access to Te Reo through choosing to listen to Māori/iwi radio stations and Māori TV but I can have days when the only Māori I*

encounter is between my half caste daughter and I... "

Support and isolation

Cultural and kaumātua support

Issues of cultural support for Māori and how this impacts on their health was identified by participants. Cultural support may include the environment, use of tikanga, and actual people with specific cultural roles such as kaumātua and being with other Māori nursing students. The following participant talks about working as a nurse in a Māori health setting and how it highlighted the importance of things Māori were also identified. The difference between Māori and mainstream health placements were also identified. The cultural aspects of Māori tikanga such as karakia, waiata and whānau are mentioned. A feeling of identity with fellow Māori nursing students is expressed in terms of support, in this case cultural support.

> *"Over the past 4 weeks I have been a placement in a Māori health setting (3 of those weeks). I loved being in that environment – karakia, waiata, whānau. First week back at polytech, we are having Māori health week which is great but realise just how important having those things Māori in my life is. I feel Māori students need support from each other – even if we don't understand why, we do benefit from that contact and support of* [institution supplied] *do their best with the resources and timetable variations..."*

Another participant identified issues of support, as a single parent is vital to their health;

> *"I think being Māori, single and with children and studying is hard at all times, but we all need help and support so we can try and maintain our physical, emotional and spiritual health..."*

The importance of kaumātua and active support services was also

identified by a participant. Here the importance that Māori place on kaumātua is described. Contact with a kaumātua was helpful for a participant who was 'down in the dumps'. The role of teachers and the power they have with their knowledge around networks and the ability to 'actively' refer is also identified.

> *"Having access to school Whaea/Kuia would be helpful to me sometimes when you're down in the dumps you don't have the strength to seek someone to help. Improved access and knowledge to/of the people who can help would be good. Teachers who refer (actively refer, not just suggest but actively set up appointments) to support services"*

This participant also identified issues of 'tokenism' and minimal support to meet the cultural needs included in Māori health perspective. Areas, such as spiritual and emotional, were listed in addition to physical health.

Learning institution support

The importance of contact with Māori support services at learning institutions and other Māori nursing students is summed up here:

> *"I need to socialise with more Māori on Campus, not many Māori in yr 2 course of my age – only 1 or 2 Māori support lecturers. Have had little acknowledgement from* [Iwi] *Māori liaison (actually none), even after looking for her..."*

Whānau support

The following participants referred to receiving support from their whānau at all levels of health including physical, spiritual and mental and emotional;

> *"...I have thoroughly enjoyed my journey towards becoming an R.N.* [registered nurse] *what has helped me is very strong support networks, friends, family and lecturers and also prayer...."*

> *"Whānau – I find it difficult being separated from my immediate family while I am studying, so, I make sure to get around my close cousins & aunties etc. Wairua – While separated my prayer life is stronger for my whānau. Tinana – While separated I am more disciplined in eating habits and morning walks. Hinengaro – On overload due to BN studies. Overall*

thinking & believing this strengthens me and benefits my family and hapu in the big picture, maximising my family time, quality."

The importance of family is emphasised by this participant who uses prayer to cope with being separated from them. The goal of completing nursing to help family and people in the future provides strength for them to draw upon to deal with the stress of study. Awareness of their health status and the importance of maintaining it are reflected in their comment where they mention staying on top of their nutrition and physical activity. Thoughts of whānau and hapu and helping them in the future are a coping mechanism for reducing the mental and emotional stress of study.

Another participant accesses support from whānau, in this case spouse, and when it is unavailable how that impacts on health. They also talk about their inner strengths as a counter action to any health detriments;

"My husband who also works in the Health Industry (qualified) has been forced to work overseas due to on-going industrial disputes in settling their pay parity award. As a result I am on my own with my son with very little support (apart from good student friends). My health has deteriorated and I am frightened, especially for my heart health. However my desire, drive and determination to become a registered nurse is so strong I will continue on."

Other participants also made links between whānau and spiritual values; in this case reference is made to spiritual needs being met through connections including whānau, in particular children;

"I meet my cultural and spiritual needs myself by my own connections to my Whenua/Wairua and whānau. My children are my spiritual bases along with the whenua give my heart fortitude. The youth are the future of the nation and this is where my focus lies."

"... I have thoroughly enjoyed my journey towards becoming an R.N. what has helped me is very strong support networks, friends, family and lecturers and also prayer..."

Being separated from whānau or not being able to spend as much time with them also impacts on one participant's emotional/mental health as they state;

"I feel the biggest thing that affects during my study is the sacrifices of not being able to spend time with my whānau, especially my partner and son. That's what brings me down."

Cultural isolation

Previously a participant identified parenting without her husband and isolation from family support. The support they did get is from friends who are also students. Although they identified their health has worsened they refer to their inner motivation and dreams of fulfilling the role of a registered nurse as giving them the strength to continue with their study. A desire to overcome any challenges and be successful provides the inner resolve to persevere.

The following participant described feeling culturally isolated in their study with Māori on the course and in teaching roles a minority. They also identified this isolation occurs in the context of the life choices they have made. This might include choices, such as where they are living and the course they are taking, where Māori appear to be few and far between. This is significant when we consider that to engage in a nursing training course, Māori may have to live and study within environments that are non-Māori and predominantly culturally New Zealand European.

"...not many Māori in Yr 2 course of my age – only 1-2 Māori support lecturers. ...I can have days when the only Māori I encounter is between my half caste daughter and I... I'm trying to say that sometimes I feel culturally isolated in my life choices."

Another form of isolation is described by the participant below when they talk about studying in a geographical area far away from their hapu and iwi;

"For many of us in Southland we are from North Is Iwi, isolated from out papakainga and whānau"

Tokenism

A negative view of available support is expressed by this participant;

"...sensitivity to Māori cultural needs is given lip service, in reality there is minimal to no actual support or understanding of the physical, emotional and spiritual needs of Māori students"

Another comment relating to this refers to Te Tiriti o Waitangi and the partnership between Māori and the Crown and Māori rights including Māori access to and retention of all that they value.

"I feel [institution] *prides itself on Tiriti partnership but does not live up to it so far. Hopefully this will change"*

Mental health

Positive aspects of mental and emotional health in relation to study were captured in the following comments.

"My emotional well-being has been affected due to a death in my family, but otherwise my emotional health is good."

"...my desire, drive and determination to become a Registered Nurse is so strong I will continue on no matter what. This has been my life time dream and I am not prepared to give it up without a fight. I believe I was born to do this."

The negative effects on mental and emotional health are reflected in the following comments that identify course related work and missing out on family time due to study commitments as the cause.

"...wanted to state emotional stress came from school work and assignments that do have effects on the family..."

"Hinengaro – On overload due to BN studies."

"I feel the biggest thing that affects during my study is the sacrifices of not being able to spend time with my whānau, especially my partner and son. That's what brings me down."

Physical health and nutrition

Illness

The following participants list some serious impacts on their physical health including illness such as diabetes, heart health and back conditions.

"At the age of 28, I developed hypertension at the time I was overweight and lacking in physical exercise and motivation caused by depression. I have a family history of hypertension, heart disease and diabetes, depression and obesity – a contributing factor to onset of hypertension and diabetes and depression. I developed diabetes type 2 at the age of 35 – it is diet controlled at present. It was in my opinion, inevitable, that I would develop these non-communicable diseases but lifestyle habits and consumption of sugars, fats and salt definitely played a huge role in the onset. I take anti-hypertension medication, eg. Candesartan, Doxqsozin, Bendroflurozide, Aropax, Feurogradumet (iron) as I am anaemic. I also have the IUD – Marena because of heavy periods."

"...I am frightened, especially for my heart health..."

"Most of the physical pain I have had over the last month was due to back pain."

> *"I had a bad dose of flu last week and had time off tech and work. I also have medical issues currently being investigated."*

Nutrition

One participant expressed concern around nutrition in the following comment:

> *"Healthy food in tech cafes should be subsidised, on a student allowance healthy food is really difficult and expensive to access, my diet since being a student has become progressively unhealthy due to financial and time constraints."*

Tiredness

Another aspect of physical health was that of tiredness or impacts on vitality levels. This participant refers to feelings of lack of vitality and energy due to clinical placements.

> *...because we're on clinical at the moment (have just started) we've all gone from being energetic to tired all of the time (and there's 5 weeks to go) so it will get worse."*

General health

Some other concerns referred to students living environments and noticing that their health in general was getting worse.

> *"It may be relevant to take into account that flatting/living situations are an added stress/strain – the outcomes of health."*

> *"...My health has deteriorated..."*

Acknowledgement

I have included comments below where the participants expressed thanks for being able to participate in this research. This may reflect positive feelings from the participants about being involved in research by Māori for Māori and a

study that is specific to Māori nursing students as opposed to Māori in general. It highlighted health issues for some participants and provided an opportunity for them to reflect on their health.

"That you for being part of your research project."

"Thank you Sha for allowing me to participate in your survey."

"Thank you for allowing me to fill in this paperwork."

"...I enjoyed doing this research, I like it how this research is focusing on issues that we as Māori may have. I'm looking forward to seeing your research when it is completed..."

"...Just like to comment that I really enjoyed filling out this survey for you and it made me really think about how my health has been in the past few works and why..."

Summary of qualitative data

Of all the comments offered by the participants' the majority referred to Māori culture/health, support and isolation in many forms. Mental and emotional health comments were the next most common then physical health issues. Comments about Māori health certainly fit with the accepted view of Māori health of which physical health is only one of at least four components. The larger number of comments referring to cultural health also emphasises the importance of culture for Māori and how lack of access to this can have a negative impact on the health of Māori nursing students. As well as direct access to cultural aspects such as other Māori, whānau and kaumātua, feelings of being 'alone' or a minority are also important and certainly weigh on the minds of some of this study's participants.

Although this is essentially a quantitative study the comments shared by participants provide their own richness of reflection on the survey topic and what is important to these Māori nursing students in relation to their health status. It

was important to include the opportunity for comments as the holistic nature of Māori may require more than pre determined tick boxes for expression of what is important with health for Māori; in this case Māori nursing students.

Chapter 5: Discussion

This chapter discusses various issues of significance in relation to the results identified in the study. The discussion looks at correlated factors such as; cultural needs and cultural identity, relationships status and support, relationship status and income, and participants' health.

Māori culture and health

Identity

The results demonstrated a significant correlation between cultural identity and cultural needs being met (r = .357, p = .002). In other words, this survey revealed that Māori nursing students who have a stronger cultural identity are more likely to have their cultural needs met while studying on a nursing degree. It follows then that if a nursing degree programme can provide a positive cultural environment for Māori nursing students then their health should be maximised rather than compromised. This could contribute positively to the recruitment and retention of Māori nursing students, thus increasing the numbers of Māori registered nurses entering the health field and participating in making a difference to Māori health.

Initially when designing the study the physical and mental components of the SF-36 were considered not enough to cover the unique health status of Māori. This is because the SF-36 does not contain any questions about cultural self identity and whether or not cultural needs are met. Cultural identity has been identified as integral to the health of New Zealand Māori (Coupe, 2005), therefore this study needed to include some measurement to include this component. A framework designed by Durie et al. (2002) was incorporated into the SF-36 by the researcher to cover the health status of Māori.

The components of this framework by Durie et al. (2002) include notions of secure, positive, notional and compromised cultural identity.

Individuals with secure cultural identity have good access to Te ao Māori (world of Māori), Te Reo, whānau and other aspects that form Māori culture. They may send their children to Māori schools of learning (Kohanga reo, kura kaupapa) and may ascribe to Māori values and ways of being. Positive cultural identity relates to individuals who have a strong sense of being Māori and are positive about the different aspects of Māori culture but may not have access to various aspects of Māori cultural or social life. Notional cultural identity refers to individuals who describe themselves as Māori but do not have any contact with Te ao Māori. Compromised cultural identity relates to individuals who have access to Te ao Māori but do not describe themselves as Māori (Durie, 2002). The importance of having access to Te ao Māori is reflected in one participant's comment (see page 65) about being in a Māori health setting and the contrast between that environment and the one at polytechnic. Specific aspects of this placement in a Māori setting were valued by the participant including karakia, waiata and whānau. Also identified as important and beneficial for Māori students was supporting each other.

When we consider aspects of culture such as spiritual beliefs, family, our bodies and how we think and feel we can see that Māori have their own unique culture both as individuals and collectively. It is therefore appropriate to include culture and self identity in the survey used in this study. A study conducted by Coupe (2005) examined the connections between Māori suicide and cultural identity. Coupe discovered that disconnection with Māori culture was associated with higher rates of Māori attempted suicide. Cultural connection comprise speaking te reo, knowing one's whakapapa, visiting one's marae and whānau (Coupe, 2005). Those who attempted suicide were more disconnected from their Māori culture and were more likely to have poorer general health (including mental health), which could manifest clinically as tiredness and lack of energy. Coupe (2005) found suicide rates for Māori who were more culturally connected were less, reflecting the importance of cultural connection or cultural identity on Māori health status.

Connection to the land and spiritual values along with whānau provide an integral base for many Māori who view their health from a Māori perspective. One example of this would be the Māori health model Nga Pou Mana developed by The Royal Commission on Social Policy (1988). This health model identifies Māori health as springing from four supports (pou) - whānaungatanga, taonga tuku iho, te ao turoa and turangawaewae (Durie, 2005a). Turangawaewae or 'a place to stand' represents not just individual cultural identity but collective cultural identity for Māori. The marae is a place where Māori can experience this collective identity in all its fullness. On the marae Māori tikanga, art, language and other cultural aspects of Māori ways of being are able to be expressed. One participant identified accessing their Māori culture themselves through being connected to their environment and whānau. Their children are a part of their spirit and they along with the connected to land give them inner strength and keep them focussed.

Strengthening cultural identity is proactive for Māori health and reinforces the positive stance of collective health versus individual health. This could be visualised as the Māori health concept of whānau, hapu, iwi versus the western ideology of individual responsibility for health status (Mackay, Soothill & Melia, 1998). Whānaungatanga refers to not just your immediate family but your extended or related family including aunts, uncles, and grandparents' generation and so on. These larger supportive groups are integral to Māori cultural identity, and are linked inextricably to marae structures and Māori ways of being.

Taonga tuku iho describes cultural heritages such as language or te reo. For Māori culture to retain its integrity and mana (pride) te reo needs to be recognised as an integral cultural heritage that Māori were entitled to maintain and have access to under Te Tiriti o Waitangi (Durie, 2005b). Various initiatives over the past 20 years or so have resulted in a revitalisation of te reo and recognition at national level as an official language of New Zealand. This allows for access to te reo at all levels within New Zealand society and to be used in everyday life and education. Youth in New Zealand are certainly being exposed to the resurgence of Te reo with Māori

language in schools, Māori language immersion schools, Māori radio and television and new slogans such 'Māori pride' being used on websites, clothing, television programmes and in contemporary music.

Te ao turoa refers to an indisputable land base, which recognises that Māori belonging and mana stems from a connection to the land. An examination of Māori culture reveals a culture steeped in tikanga and practices revolving around their relationships with the land and waterways interacted with daily. Generational links to areas of significance and the practicalities of clean water and sustenance from the land demanded that Māori honour and protect their environment so they in turn might be nourished and flourish as a people. Subsequent colonisation and alienation of Māori land has been identified as a direct impact on the health of Māori today and lack of cultural identity (Durie, 2005b, Walker, 1990). Although Māori are reclaiming land through The Treaty of Waitangi Tribunal claims process, the impact of colonisation on Māori health over the past 150 years has been undeniably negative and recent and ongoing redresses regarding economic resources and land reclamation are only a start to assisting with the restructuring of Māori culture and mana.

Māori culture

When examining literature around Māori health it is clear that culture is integral to Māori health status. Take for example Māori health models. These have been designed over the years as various academics, health workers and government departments have struggled to understand the unique Māori view of health. Durie (2005a) described the Hui Whakaoranga where the links between culture and health were identified as of significant importance to Māori. Durie (2005a) identified cultural heritage often came into play in times of compromised wellness or illness. Notions around tapu and whānau played significant roles for the unwell Māori individual and contributed to levels of depression and anxiety. The World Health Organisation's (WHO, 1986) definition of health as "...a state of complete physical, mental and

social wellbeing, not merely the absence of disease or infirmity", is reflected in the most commonly used description of Māori health described in Durie's (2005a) health model Te Whare Tapa Wha (Appendix C).

Te Whare Tapa Wha consists of walls of a house representing four dimensions of health, namely, wairua (spiritual), hinengaro (mental), tinana (physical) and whānau (family). These four aspects of Māori health exist in harmony with each other and form the basis for a Māori view on health. Any weakness in any one of these walls or dimensions in Te Whare Tapa Wha ultimately impacts on the other dimensions, while the opposite applies with the strengthening any of the components or walls in the whare (Durie, 2005a).This view is also consistent with a 'holistic' view of health that acknowledges the individual within their environment, and includes more than just physical aspects of health, but also, mental, spiritual and cultural (McMurray, 2007).

Initially the concept of wairua for Māori health was recorded in mental health areas where western diagnosis reinterpreted Māori views on 'mate' and other spiritually significant experiences as 'superstitious phenomenon' and not helpful to a scientific diagnosis (Durie, 2002). Tipene-Leach (1981) writes about other examples of cultural significance in relation to Māori health, such as initial communication between health professionals and clients where culture plays a big role. For example a detached and impersonal approach by health professionals who accept it as socially appropriate may not work for a Māori client for whom this approach is culturally offensive. The Māori client may expect proper introductions and possible family links to be established first before engaging in any medical processes. Other things such as appropriate eye contact, touching certain parts of the body and family presence will be different for Māori overall when compared to the dominant Pakeha culture in New Zealand, Aotearoa (Tipene –Leach, 1981)

Te reo

One participant shared how the media was used as a form of connecting with his/her Māori culture outside the learning institution. As part of the revival of Māori culture and language in Aotearoa certain resources have been developed to improve the access of Te Reo and te ao Māori to as many people as possible. Urban Māori for example or Māori cut off from whānau and life are able to connect wherever they are to the language and things Māori through TV and radio (Mather, n.d). This promotion of Māori language and culture strengthens cultural identity and establishes it firmly in New Zealand as a part of normal everyday life. This is important as the literature clearly reflects that indigenous people and Māori are more likely to retain their health if their cultural identity is secure (Coupe, 2005; Durie, 2004a; & Durie 2004b).

Support and isolation

Kaumātua support

How we view our beliefs, the values we hold and how we express these things are all a part of our own unique culture and self identity and in a more general sense our social identity (Wepa, 2005). Whānau links for Māori can include older Māori individuals who are seen as a source of moral and emotional support, as well sources of cultural wisdom.

Another area that participants identified as important was that of 'cultural mentorship such as access to kaumātua and the cultural and spiritual support they provide. A whaea or Kuia is described as a female Māori elder When we examine concepts of support, mentoring is a clearly identified strategy. According to Raumati, Waaka and Raumati (2007) mentoring using a Māori framework differs markedly to mentoring from a Pakeha perspective. Pakeha mentoring is identified as coming from an individualistic and reductionist point of view, whereas Māori mentoring is grounded in te ao Māori or a Māori worldview. Te ao Māori includes a holistic view which encompasses relationships both immediate and generational, reciprocity and support or awhitanga. Raumati et al.

(2007) maintain that for Māori mentoring to occur attention must be given to the environment within which it needs to occur. This includes allowing Māori to control these processes and not overlaying Pakeha or non-Māori concepts associated with mentoring onto the process. Although individual face to face mentoring is acceptable within Māori processes, group mentoring is also utilised and valued with Māori. Raumati et al. (2007) described four principles that must be considered with Māori mentorship; pumanawa moe (potential) or pumanawa (ability), wairua (spirit), hinengaro (mind) and tinana (body). Protecting Māori mana (esteem) both self and collective, mauri (life force) and wairua requires evidence of manaakitanga (caring and respect) and any absence of this reflects an unsafe or unfriendly environment for Māori to function within (Raumati et al., 2007).

Learning institution support

So it could be construed that the level of cultural support available to Māori nursing students is important. Although all tertiary institutions are required to acknowledge Te Tiriti o Waitangi in their policies and protocols, (Nursing Council of New Zealand, 2008) the means whereby this is approached is left up to individual institutions. Hence the approaches vary from minimal Māori culture supports and environments to more sustained and robust support systems that assist with access to te ao Māori for Māori nursing students. Some examples of these different approaches include Māori health papers being taught as part of the nursing degree, kawa whakaruruhau committees (with student representation), whānau rooms available for Māori students, Māori academic support liaison workers, Treaty workshops, and in one instance, a Māori strand such as Tihei Mauri Ora (Simon, 2000). The Nursing Council provides clear guidelines around content for nursing programmes that includes in addition to Treaty content, cultural safety (Nursing Council of New Zealand, 2008).

One participant identified benefiting from contact with other Māori students but there was a lack of Māori of a similar age in her year of study. Interestingly, she also mentions there is a minimum of Māori tutors evident and

the Māori liaison person is also not very visible or accessible. This is reflected in figures that show Māori are underrepresented in professional health and education roles (National Health Committee, 1998; Royal Society of New Zealand, 2005). Being a minority may result in feelings of isolation and feelings of being alone and disconnected. Indeed when Manchester and O'Conner (2000) interviewed three Māori nurses, one of them identified these very feelings of being alone and feeling isolated as Māori within mainstream institutions. These circumstances and feelings contribute negatively to both physical and mental health. Mental health is well documented as being of significant concern to Māori with figures showing that Māori suffer disproportionately with mental health issues (Durie, 1996, Coupe, 2005). Although there are many contributing factors towards feelings of this nature including the effects of colonisation, urbanisation and loss of culture; the experience of living within a predominately hegemonic monoculture which is influenced by racist systems can leave Māori feeling socially isolated and with negative feelings about the experience or circumstances (Eckermann et al., 2009; Durie, 2005a; McMurray, 2007; Wepa, 2005).

Some of the institutions offer less than satisfactory cultural support for Māori nursing students, evident in comments from participants. One participant suggested that this may be because there is little or no understanding of the way that Māori function with their health in a holistic sense and that there is a general lack of caring in mainstream about Māori ways of being.

Whānau support

Whānau is intrinsic to the overall wellbeing from a Māori perspective. Within Māori culture whānau include more than just parents and children, it includes older generations, parents, siblings and their children and the family of anyone who marries into the whānau. Kuia are recognised as having a special role within whānau and Māori tikanga. Kuia and kaumātua provide the wisdom of an older generation and the awhi and tautoko that accompanies the realisation of moemoea and aspirations for younger generations. Māori draw strength from kuia and the spiritual protection and knowledge about life they provide. Raumati

et al. (2007) discussed aspects of mentorship for Māori that include the concept of whānaungatanga and the relationships one has as part of a larger Māori entity. Kaumātua and kuia are an integral part of those feelings of belonging and support that Māori experience when receiving mentorship from a Māori paradigm.

Focussing on future benefits for their family and moemoea (dreams & aspirations) give students the strength to keep on going and to cherish the time they do spend with their family. One participant identified whānau as their main support mechanism, as well as prayer and trying to maintain a healthy and balanced as possible approach to health. Māori perspectives around moemoea can be traced from the signing of Te Tiriti o Waitangi in 1840 through to today's health strategies such as He Korowai Oranga and political movement such as the Māori Party. Māori have always maintained that they wish to retain their own sovereignty over themselves and everything that they regard as their taonga, including land, language and culture (Bishop & Glynn, 2003; Durie, 2004a; Durie 2004b; Durie, 2005; Walker, 1990).

Tokenism

Manchester and O'Connor (2000) identified tokenism as an issue for Māori students. Tokenism' relates to a superficial or iconic gesture made to recognise or represent minority groups, often when referring to racial integration (American Heritage Dictionary of the English Language, 2003). Olsen, Maxwell and Morris (1995) discuss strategies that are employed in family group conferences within the social justice environment that are designed to eliminate tokenism. Such strategies approach issues for Māori from a whānau, hapu, iwi basis and locates control of tikanga processes with the whānau to ensure that their cultural beliefs and values are included in the 'how' things are done. These approaches have been successful in providing an environment where the experience is more likely to be positive for the people involved.

Cultural isolation

Some students identified they find access to cultural supports through their own means such as fellow students. One participant identified that her Māori colleagues (possibly in the years ahead on the programme) as his/her main cultural support, not the tutors or institution as such. Peer support, especially from those who have the same role as student is important. Students further ahead in a nursing programme can offer advice, support and empathy for those who are following along behind. A tuakana-teina approach to mentorship and assistance with issues by more senior students can provide newer students with a sense of comfort or safety, knowing that they are not alone in their struggles and that they can succeed (Raumati et al., 2007). Tuakana-teina approaches refer to the mentoring of someone younger or less experienced by an elder or more experienced person(s).

Mental Health

The MCS scored lower overall than PCS. The mental health component included the following components - vitality, social functioning, role – emotional and mental health. The lowest component scores within this area were for vitality and role – emotional. Vitality is assessed by asking questions about the following: In the last 4 weeks did you "feel full of life, did you have a lot of energy? Did you feel worn out? did you feel tired?"

Vitality includes feeling full of life, energy, feeling worn out and feeling tired. One of the considerations when you are a nursing student is the hands on or clinical component requiring them to work within clinical settings. This can involve rostered rotating shift work with early morning starts, late evening finishes and night shift. Conflicting sleep and wake stimulants such as going to bed when it is light instead of dark can interfere with the body's normal biorhythm (Bentley, 1999), could leave a person feeling extremely low in energy and worn out and tired. This could be exacerbated when the student

has other responsibilities requiring juggling sleep and roles around different clinical shifts.

Role emotional was assessed by asking the following questions: During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (e.g. feeling depressed or anxious)? Cut down the amount of time you spent on work or other activities? Accomplished less than you would like? Didn't do work or other activities as carefully as usual?" Feeling full of life, results in feelings of happiness and enjoyment in living. When we examine depression and sadness we can identify issues that impact on how an individual feels day-to-day. Self-esteem and self-identity feature strongly in mental health, especially with depression. Energy levels can be related to depression as well as feelings of being worn out and tired. There are of course practical environmental reasons why people feel this way, such as tiredness related to being on clinical and therefore exposed to rostered and rotating shifts, tough enough on any nurses biorhythms let alone with study to manage.

Maintaining regular life activities such as parenting, work and other responsibilities and then taking on additional activities such as study and attending classes can increase stress levels and reduce the amount of recreation and rest time that a person has. One would think Māori would be not much different in their response to these everyday life stresses than anyone else. However, Coupe (2005) identified in her study on Māori and suicide, Māori often present with advanced cases of depression as their early signs and symptoms may be misdiagnosed as feelings of 'tiredness' as opposed to an abnormally flat or depressed mood. This could be due to health practitioners having retained the view that Māori are more resilient than non-Māori or having a dismissive attitude towards Māori who seek health advice and diminishing their concerns by putting it down to personal management of their life situation and environment. This perspective is certainly reflected in the literature which identifies that institutionalised racism and subsequent reduced access to health

resources for Māori is well and truly alive in today's New Zealand society (Durie, 2005a; Eckermann et al.; 2009; Harris et al., 2006).

Depression or anxiety cut down work or activity time. When someone suffers depression or anxiety their vitality or energy levels are greatly reduced (Keltner, Schwecke & Bostrom, 2003). This of course results in less motivation for activities including work, home responsibilities and in the case of nursing students, study time. So individuals may feel that they are accomplishing less which leads to negative feelings and more depression and stress. Participants in this study identified that they had less time to meet their roles and responsibilities; especially for family and that this had a negative effect on their mental and emotional state.

Depression or anxiety impacts on how carefully work or other activities are performed. When people are feeling tired and worn out with reduced motivation levels, increased roles and responsibilities and having less time to deal with day to day activities, it is understandable that the individual will not function at full capacity. Without full levels of energy and the ability to focus fully on what one is doing it is possible that any tasks and activities undertaken may not be done as carefully as they might have been performed otherwise.

Physical health and health status

When we examine the participant's health overall compared to a year prior we can see that they have identified that their general health status is worse. Some of the stresses and identified issues around tertiary study that may contribute to this include, less money, poorer nutrition, studying full time, part time work, travel time and expenses, textbook, uniforms and equipment expenses (Sadler, 2005). As well as these day to day issues Jones and Johnston (1997) identify academic and clinical stress may also impact on a

nursing students' health. Academic stress involves hours of study, exams, writing assignment and so forth, and clinical is where new clinical skills are being learnt, such as giving intramuscular injections or catheterisation. Other pressures in individual's lives include roles which encompass areas such housework, child care and spending time with other family members and friends. These roles are included as part of the SF-36 survey and the results demonstrated that the participants did indeed see this area as emotionally stressful for them.

Physical health score compared to mental health score

The results showed that students were more likely to have better physical health than mental health. This indicates that mental stress could have the biggest impact on student's health status. Mental stress as described by Jones and Johnston (1997) could include such factors as feelings guilty or negative about having less time to spend with friends and family or fulfilling other roles in their day to day lives. Loss of income and accruing of debt may also weigh heavily on individuals as they have to readjust their lives to deal with less money for basics such as food and shelter. Less money to spend on leisure activities and the impact this may have on family members who are also being affected by the individual's decision to enter into a course of study.

The general health section included the following questions; Firstly "in general your health is" with answers determined by ticking a box ranging from poor to excellent. Secondly a Likert scale ranging from definitely false to definitely true for the following questions; "I seem to get sick a little easier than other people", "I am as healthy as anybody I know", "I expect my health to get worse" and "my health is excellent". Participants' scored worse on this component than the other PCS components. This component has three parts to it, one is comparing one's health to others, one is about the

participants expectations regarding their future health and the last one is identifying their health as excellent or the maximum positive health outcome or anything less than that.

Comparing ones health to others

As Māori live and function within an environment where they are a cultural and ethnic minority it is most likely that they will be comparing their health to the most common denominator. In this case Māori would be comparing their health to that of Pakeha who make up 67.6 % of the New Zealand population (Statistics New Zealand, 1996). When we compare Māori and Pakeha health status we see clearly that Māori have many more serious health issues across the board and that Pakeha enjoy a relatively longer life expectancy and less health problems. As well as this, Pakeha are more likely to have access to health services and Māori less likely to have access to culturally appropriate health services (Durie, 2005a, Ellison–Lochsmann & Pearce, 2006.).

General health

The breakdown of larger Māori family groups with urbanisation and colonisation combined with loss of land and associated socio economic resources; loss of language and culture and exposure to hegemonic dominance and racism have all impacted heavily on the poor health statistics we see today with Māori health and well being. It is not surprising therefore to see Māori nursing students identifying integral factors important for their wellbeing whilst completing a nursing degree.

Nutrition

When we consider some of the illness and disease that Māori suffer a disproportionately high number in, we can see the links between socio economic status and lack of health literacy and appropriate health environments for Māori to access. One of the study participants commented on their own health status

and physical illness and referred to their lifestyle choices and lack of good nutrition, specifically the consumption of sugars, fats and salt. Individuals and communities that are unaware of healthy food choices or lack the means to purchase them do indeed suffer higher rates of obesity and diet related illness. One participant commented on the lack of reasonably priced healthy food being available in the university/polytechnic canteens. Another talked about flatting away from home as being a stress and for those individual who are young and may have relied on parental figures to supply and prepare nutritious meals, their nutritional status may indeed be compromised.

Tiredness

As student nurses on clinical follow regular shift hours they will be doing a number of seven in the morning starts, late finishes on afternoon shifts at eleven at night and some night shifts starting at eleven at night and going through to seven in the morning. On top of this they will have assignments and written work to complete as part of their course and if they have family, roles within that context to deliver as well. As Māori have a fair number of mature students engaging in tertiary level education compared to their younger counterparts it could be assumed that more Māori nursing students will have family and family responsibilities to cope with as well as study commitments.

Relationship Status and Supports

The study identified that 36.9% of participants identified being in a relationship. Relationships provide a different dynamic for students to function within than if they were single. Individuals in relationships are more likely to have related roles such as partner/spouses, aunties, uncles, grandparents or parents. They may have associated responsibilities including, housework, childcare, cooking, shopping and other integral household responsibilities.

Potential benefits of being in a relationship as a student may include, support from immediate family with issues such as transport, housework, childcare and income. This would allow the individual to spend time engaged in study and to attend classes. Potential barriers may include unsupportive partners, where expectations are that the student continues the main housekeeper and/or child caring roles, as well as the new role of student. This would place a large amount of extra pressure on an individual. Indeed a new student may imagine that they can function in dual roles successfully; however this may be an unrealistic expectation.

As Māori engaged in tertiary education are more likely to be older and more likely to be female according to Statistics New Zealand (1996), it is possible that female Māori nursing students may have more pressure on them in the child care and housekeeping roles that women traditionally take responsibility for. If more tertiary level students are female then it is possible that these role pressures could result in higher levels of stressed or pressured Māori nursing students in general.

Relationship and Income

Māori nursing students in this study who are in a relationship are more likely to have a higher income. When we consider the impact that income has on health we can see that Māori in lower socio-economic circumstances have worse health statistics (Ministry of Health, 1998; 2000). A situation where there is more than one wage earner in the family usually results in a higher income overall and sharing of expenses. Even though the student in the relationship may have given up full-time work to engage in study, they may have more financial support than a student who is single and who has no income backup from a partner or family they are living with. A couple of participants talked about single parenting and how this is stressful and one identifies how he/she receives little support.

As a single parent, students are directly responsible for supporting not only themselves, but a dependent child or children as well. This is not an uncommon theme, Manchester and O'Connor (2000) also mentions the stress for Māori nursing students of being a parent and studying at the same time. The financial strain this would result in may well impact on their physical health, which may have deteriorated. Sadler (2005) discusses some of the issues faced by tertiary students which include academic stress and lack of finances and poor nutrition. The ability to provide safe housing, nutritious foods, adequate clothing and other needs such as transport and childcare costs all add to any stress a student may be undergoing. As the course is full-time they may be surviving on savings, taking out student loans or have a benefit that allows enough money to live very basically without any of the 'frills' or extras that working people may take for granted. The National Health Committee (1998) clearly identified that people with low socio economic status have higher health needs, including tertiary students and people on income support.

Māori student nurses choose a course of study at degree level where Māori are underrepresented (Statistics New Zealand, 1996). It is a sad reflection on our society that Māori feel culturally isolated within their own country and that this may impact on their mental health negatively. Since the 1980's, there has been a marked improvement in some areas of New Zealand life where Māori cultural values and ways of being are enjoying a revival. Examples of this include, the emergence of language immersion pre schools (kohanga reo) and schools (kura kaupapa) and Māori wananga or tertiary level education institutions.

One of the Māori nurses interviewed by Manchester and O'Connor (2000) identified that she found Māori wananga style institutions of learning more supportive for her. Te reo (Māori language) is more accessible nowadays to the youth culture through Māori radio stations with contemporary artists and Māori television and media presenters. These

media developments expose Māori culture to society in general and to the younger generations. However despite this cultural revival Māori are still a minority in mainstream learning institutions and professional health roles (Royal Society of New Zealand, 2005). As wananga include the use of te reo and tikanga, this has proven to be of benefit to Māori, it then follows that a nursing degree programme that includes these components could be expected to have a positive influence on the health status of Māori nursing students.

Expectations about future health

With the shocking and well publicised health issues for Māori in New Zealand it would not be surprising if Māori expectations about their future health both individually and collectively are more negative than their Pakeha peers. When family are suffering from diseases that could have been avoided with improved health literacy and access to health services and resources, but which access to has been limited and difficult, it may result in a feeling of hopelessness and an acceptance of unkind fate. Generations of Māori have suffered reduced access to health services and better life chances due to forces of colonisation such as racism and an unfair allocation of resources and goods and services. This creates a vicious generational cycle where hopelessness and lowered expectations It is important to remember to view Māori health status within the context of the historical and colonial processes that have influenced Māori health since the arrival of Pakeha in Aotearoa New Zealand.

Self identification of health status

The personal view of an individual's health may not necessarily reflect the views of others observing that individual. For example, a person who has been unwell or knows someone who is may feel that when they recover they are much healthier than before. Instead of measuring their health against their health prior to the illness they are comparing it to their most recent health status which was not good at all, so any improvement

is seen as good. This category may also be linked to expectations around health passed down successive generations and the individuals own health literacy level. Some people will identify their health status as good or better based on the fact that they have given up or changed health related life style factors such as smoking cigarettes or drinking alcohol. However, despite the diversity answering these questions, self identification is a more reliable way of measuring someone's health, in particular mental health. As mental health is closely tied in with spiritual and emotional wellbeing it is helpful when addressing mental health in particular as many of the signs and symptoms can be addressed at a subjective level. For example, the individual can identify their feelings more readily than someone who is observing for clue-like behaviour that may not be forthcoming.

Summary

This study has looked at the health status of Māori nursing students and the results can be summarised as follows. Participants identified that their mental health was impacted more than their physical health and that their health was worse than one year prior. Under physical health the area impacted the most was general health or feelings of tiredness and lack of vitality. Tiredness and lack of vitality are factors that are indicated with depression, in which Māori are disproportionately represented. This physical state therefore links to mental health as well and does necessarily stand alone when looking at health status. Indeed mental health was identified by the participants as more negatively impacted overall. Under mental health the area most affected was feelings around their roles and relationships. It was also revealed that the participating Māori nursing students were more likely to have their cultural needs met if their cultural identity was stronger. Strategies in response to this cultural need include the development of Māori kaupapa nursing programmes which so far show positive promise for increasing the numbers of Māori nurses in Aotearoa. It was also more likely that participants

who were in a relationship were more likely to have higher income. Therefore students who identify as single and not living within a whānau structure may require more support with practical financial aspects associated with maintaining health.

These findings are corroborated by other studies and literature around culture and cultural needs for Māori. The physical and mental health status of participants could be linked to the under representation of Māori in health professions and degree level education and possibly the higher dropout rate demonstrated by Māori nursing students when compared to non Māori. The findings also identify the areas of highest concern to the participants and possible strategies which could be initiated and developed further to assist with improving the number of Māori nursing students who complete and achieve in their studies to become registered nurses.

Chapter 6: Recommendations

This study is not intended to be a full representation of the health status of Māori nursing students. The form of the research described reflects a snap shot of Māori nursing student health status this may be helpful from a number of perspectives.

Firstly, the area of Māori nursing students' health status is not researched, although linked topics such as mental health issues for Māori and studies on students are available. Other linked areas such as cultural identity and health for Māori are well covered and the evidence is both compelling and fairly comprehensive that Māori are most likely to be under represented in health and education and over represented in poor health and education drop out statistics than non-Māori. Recruitment of Māori into nursing degree programmes also demonstrates under-representation compared to non-Māori, the attrition rate is higher and achievement rates of these Māori students is lower than non-Māori.

Proposed reasons and influencing factors leading to the aforementioned status of Māori within these nursing programmes include, but are not exclusive to Māori retaining lower socio-economic status and lower education levels. Lack of cultural identity and support in mainstream institutions, such as Universities and Polytechnics, is also an identified factor corroborated by comments from participants in this study who clearly identified that cultural support was an issue. Feelings of guilt or isolation around roles and responsibilities within families were also a concern for participants and were reflected in their self identified health status. This study provides a specific starting point for further research around health status for Māori nursing students.

Therefore the first recommendation from this study is that

undergraduate nursing programmes provide cultural support for Māori students which will enhance their feelings of wellbeing, hence their health. Another benefit of increase in feelings of wellbeing which is relevant to the participants in this study is that feelings of guilt and isolation around roles and responsibilities within families may be reduced. Flexibility around bringing children to class and making opportunities for students to make up missed hours may also assist with reducing these negative feelings which impact on their health. Using Māori kaupapa programmes such as the Bachelor of Nursing Māori at Whitireia provides a cultural environment that should have a positive effect on Māori nursing students' mental and physical health therefore encouraging Māori students to stay on the course when their stress levels are higher.

Secondly, this research is designed to be easily replicated and may be of use for other studies looking at the health status of minority or specific groups. The particular tool used, the SF-36 is identified as suitable for a group for whom cultural aspects of health are as important as physical. The addition of cultural identity for Māori and meeting of their cultural needs provides a new extension of this tool which may interest researchers who wish to look at similar populations. The second recommendation from this study is that further research specifically around health status be conducted for Māori nursing students. A qualitative methodology would be favoured as the details around student's health and their lived experiences will provide much richer and more in depth information and detail around what is important regarding health for Māori nursing students and what their needs are.

Thirdly, this research recognises and affirms the importance of health status for Māori nursing students. This is important not only for Māori nursing students who can see that there is acknowledgement of their identified concerns but also for Māori communities and the wider New Zealand community who may need to be aware of any issues identified by

Māori nursing students' health status. This information is an indication for stronger relationships between Māori and those who are responsible for running mainstream institutions such as Universities and Polytechnics. It is recommended strong partnership with institutions with Māori be formed so issues affecting Māori nursing students can be discussed, and addressed if necessary. Māori ultimately need to be the drivers and the creators of any interventions or strategies to assist with maximising their own health status. However, processes need to be initiated to facilitate an opportunity for Māori to engage in identifying what health issues they might have. Government institutions and government funded institutions require evidence that there are real issues before resources to address these are made available. This particular study can be used as part of a wider body of evidence around Māori health status and to justify more support for Māori nursing students to assist with improvement of the recruitment and retention of Māori in nursing degree programmes.

Fourthly, information around meeting Māori cultural needs in learning institutions such as programmes that are designed from a kaupapa Māori perspective needs to be established. Just as kohanga reo, kura kaupapa and Māori universities have evolved in response to the need for Māori culture to be more accessible to Māori so do mainstream institutions need to evolve programmes that are designed by Māori and run by Māori from a Māori perspective. These programmes, such as a BN Māori, may provide what students identified around the need for more cultural support. One tertiary institution which has been running a successful program designed for Pacific nursing students has responded to the conversations around Māori cultural needs and rights under the Treaty by designing a BN Māori course which commenced in 2009. However, before this occurred the drive for this programme came from the local Iwi who have been involved in creating the programme and will be integral to delivering it as well.

In relation to institutions that have nursing degrees, it is important that they acknowledge and respond to Māori nursing students and by default Māori students on other courses who require more cultural support in areas such as academic, mentorship and tikanga. Consultation with Māori communities, staff and students is required when designing responses to the needs of Māori tertiary students to ensure that they are appropriate and successful. As with designing a culturally appropriate programme, 'other' support initiatives should be created and run by Māori to have the best chance of being culturally appropriate.

The last recommendation from this study is that the upcoming BN Māori considers a longitudinal study over the 3 years of the course which gathers demographic data in conjunction with self identified health status and levels of cultural support and identity from students willing to participate. This would provide a more in depth look at the health status of Māori nursing students and allow for meaningful correlations between demographics and health status. The study could provide information about the health status of Māori nursing students engaging in a programme designed by Māori for Māori and delivered by Māori. It could also track the cultural journey of Māori nursing students who do not have a secure cultural identity at the start of the course through a programme of study that has development of cultural identity as part of the study.

In conclusion, it is important that studies such as this are followed up by more in depth studies. Although the demographics and the survey have revealed issues of importance the real reflections of what is happening for individuals is found in their comments and conversations. Whereas statistics can indicate a basis for making links and observations, the conversations that participants contribute provide definitive and relative reflections of what is really going on for people. Participants' comments reveal a rich textured information phenomenon within which the participants can put forth what they see as most important to them. For the participants in this study cultural

identity is identified as having a huge impact on their health status and should be investigated further to assist with development of strategies that will make a difference to Māori nursing students.

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Appendices

Appendix A

SF-36 Health Survey

<table>
<tr><td colspan="2">SF36 Health Survey. INSTRUCTIONS: This set of questions asks for your views about your health. This information will help keep track of how you feel and how well you are able to do your usual activities. Answer every question by marking the answer as indicated. If you are unsure about to answer a question please give the best answer you can.

This survey has been modified to fit my research topic and question</td></tr>
<tr><td>1.</td><td>In general, would you say your health is: (Please tick one box.)

Excellent – ☐

Very Good – ☐

Good – ☐

Fair – ☐

Poor – ☐</td></tr>
<tr><td>2.</td><td><u>Compared to one year ago</u>, how would you rate your health in general <u>now?</u> (Please tick one box.)

Much better than one year ago – ☐

Somewhat better now than one year ago – ☐

About the same as one year ago – ☐

Somewhat worse now than one year ago – ☐

Much worse now than one year ago – ☐</td></tr>
<tr><td>3.</td><td>The following questions are about activities you might do during a typical day. Does <u>your health now limit you</u> in these activities? If so, how much? (Please circle one number on each line.)</td></tr>
</table>

	Activities	Yes, Limited A Lot	Yes, Limited A Little	Not Limited At All
3(i)	**Vigorous activities**, such as running, lifting heavy objects, participating in strenuous sports	1	2	3

3(ii)	**Moderate activities**, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	1	2	3
3(iii)	Lifting or carrying groceries	1	2	3
3(iv)	Climbing **several** flights of stairs	1	2	3
3(v)	Climbing **one** flight of stairs	1	2	3
3(vi)	Bending, kneeling, or stooping	1	2	3
3(vii)	Waling **more than a mile**	1	2	3
3(viii)	Walking **several blocks**	1	2	3
3(ix)	Walking **one block**	1	2	3
3(x)	Bathing or dressing yourself	1	2	3
4.	During the <u>past 4 weeks</u>, have you had any of the following problems with your work or other regular daily activities <u>as a result of your physical health</u>? **(Please circle one number on each line.)**			

		YES	NO
4(i)	Cut down on the **amount of time** you spent on work or other activities	1	2
4(ii)	Accomplished less than you would like	1	2
4(iii)	Were **limited** in the **kind** of work or other activities	1	2
4(iv)	Had **difficulty** performing the work or other activities (for example, it took extra effort)	1	2
5.	During the <u>past 4 weeks</u>, have you had any of the following problems with your work or other regular daily activities <u>as a result of any emotional problems</u> (such as feeling depressed or anxious)?		

	(Please circle one number on each line.)	Yes	No
5(i)	Cut down on the **amount of time** you spent on work or other activities	1	2
5(ii)	Accomplished less than you would like	1	2
5(iii)	Didn't do work or other activities as **carefully** as usual	1	2

6.	During the <u>past 4 weeks</u>, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbours, or groups? (Please tick **one** box.)
	Not at all – ☐
	Slightly – ☐
	Moderately – ☐
	Quite a bit – ☐
	Extremely – ☐
7.	How much <u>physical</u> pain have you had during the <u>past 4 weeks</u>? (Please tick **one** box.)
	None – ☐
	Very mild – ☐
	Mild – ☐
	Moderate – ☐
	Severe – ☐
	Very Severe – ☐
8.	During the <u>past 4 weeks</u>, how much did <u>pain</u> interfere with your normal work (including both work outside the home and housework)? (Please tick **one** box.)
	Not at all – ☐
	A little bit – ☐
	Moderately – ☐
	Quite a bit – ☐
	Extremely – ☐
9.	These questions are about how you feel and how things have been with you during the <u>past 4 weeks.</u> Give the one answer that is closest to the way you have been feeling for each item.

	(Please circle one number on each line.)	All of the Time	Most of the Time	A Good Bit of the Time	Some of the Time	A Little of the Time	None of the Time
9(i)	Did you feel full of life?	1	2	3	4	5	6
9(ii)	Have you been a very nervous person?	1	2	3	4	5	6
9(iii)	Have you felt so down in the dumps that nothing could cheer you up?	1	2	3	4	5	6
9(iv)	Have you felt calm and peaceful?	1	2	3	4	5	6
9(v)	Did you have a lot of energy?	1	2	3	4	5	6
9(vi)	Have you felt downhearted and blue?	1	2	3	4	5	6
9(vii)	Did you feel worn out?	1	2	3	4	5	6
9(viii)	Have you been a happy person?	1	2	3	4	5	6
9(ix)	Did you feel tired?	1	2	3	4	5	6
10.	During the <u>past 4 weeks</u>, how much of the time has your <u>physical health or emotional problems</u> interfered with your social activities (like visiting with friends, relatives etc.) (Please tick **one** box.) All of the time – ☐ Most of the time – ☐ Some of the time – ☐ A little of the time – ☐ None of the time – ☐

11.	How TRUE or FALSE is each of the following statements for you?					
	(Please circle one number on each line.)	**Definitely True**	**Mostly True**	**Don't Know**	**Mostly False**	**Definitely False**
11(i)	I seem to get sick a little easier than other people	1	2	3	4	5
11(ii)	I am as healthy as anybody I know	1	2	3	4	5
11(iii)	I expect my health to get worse	1	2	3	4	5
11(iv)	My health is excellent	1	2	3	4	5

12. Since engaging in study on the Bachelor of Nursing has your spiritual health interfered with your health and or wellbeing?

None of the time – ☐

A little of the time – ☐

Some of the time – ☐

Most of the time– ☐

All of the time – ☐

13. Based on the following definitions how would you describe your cultural health?

Secure *(that is, I have access to Te Reo, Māori land, Whānau & the Māori world)*
☐

Positive *(that is, I have a strong sense of being Māori but limited access to Māori cultural and social resources)* ☐

Notional *(that is, I describe myself as Māori but do not have anything to do with things Māori)* ☐

Compromised *(that is, I do not describe myself as Māori but have good access to the Māori world)* ☐

14.	During the <u>past 4 weeks</u> have your cultural needs been met?

All of the time –	☐

Most of the time –	☐

Some of the time –	☐

A little of the time –	☐

None of the time –	☐

Comments

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KIA ORA

Appendix B

Participant Information Sheet

Massey University
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
Te Kura Pūkenga Tangata

SCHOOL OF HEALTH AND SOCIAL SERVICES
Private Bag 102 904
North Shore Mail Centre
Auckland 0745
New Zealand
www.massey.ac.nz

Health Enquiries   Social Work/Policy Enquiries
T 64 9 441 8166   T 64 9 441 8164
F 64 9 441 8165   F 64 9 441 8165

The Health Status of Maori Nursing Students
Information Sheet for Participants

Kia ora

My name is Sha Panapa and a nurse educator. I work as a nurse lecturer at Whitireia Community Polytechnic in the Bachelor of Nursing and provide support and mentoring for all our students but particularly with Maori students. This research is part of my Masters of Philosophy research thesis I am completing at Massey University, and is an area of health to which I am committed to, namely that of health for Maori nursing students. I would like to invite you to participate in this study to ascertain the health status of Maori nursing students engaged in study on the Bachelor of Nursing course.

I am hoping to that as many Maori nursing students will participate in this study to determine the health status of Maori nursing students undertaking a Bachelor of Nursing programme. By participating you will be asked to complete the attached questionnaire. Your participation is voluntary and consent will be implied by the return of the anonymous survey questionnaire in the self addressed stamped envelope provided. No information that can be identified to an individual will be presented in the results of this study.

Please feel free to contact me or my supervisor if you have any questions:

Sha Panapa WhitireiaCommunity Polytechnic Wineera Drive Porirua Ph: (04) 237 3100 Ext: 3880 021 720 840	Dr Denise Wilson School of Health Sciences – Auckland Massey University Private Bag 102 904 North Shore Mail Centre Ph. 09 414 0800 ext. 9070 E-mail: D.L.Wilson@massey.ac.nz

Naku noa
Na Sha Panapa

Te Kunenga
Ki Pūrehuroa

Appendix C

Te Whare Tapa Wha Health Model by Professor Mason Durie

	Taha wairua	**Taha Hinengaro**	**Taha Tinana**	**Taha Whānau**
Focus	Spiritual	Mental	Physical	Extended family
Key aspects	The capacity for faith and wider communion	The capacity to communicate, to think and to feel	The capacity for physical growth and development	The capacity to belong, to care and to share
Themes	Health is related to unseen and unspoken energies	Mind and body are inseparable	Good physical health is necessary for optimal development	Individuals are part of wider social systems

Note. Sourced from: Durie, M. (2005). *Whaiora: Māori health development.* Australia: Oxford University Press.