

**TĪKANGA-BASED  
MOTIVATION  
FOR  
PHYSICAL ACTIVITY**

JORDAN WAITI  
BPhEd (Hons)

Supervisor: Dr Elaine Rose

Supervisory Committee: Dr Ihirangi Heke and

Dr Mike Boyes

**A thesis submitted for the degree of  
Masters of Physical Education  
at the University of Otago, Dunedin,  
New Zealand**

**30<sup>th</sup> March 2007**

## ABSTRACT

The purpose of this study was to investigate the ability of various Māori concepts to promote physical activity and health, and therefore function as motivational strategies for Māori to increase physical activity participation. Durie's (1985) Whare Tapa Whā model of Māori health was employed to help frame the Māori concepts of *marae*, *tūrangawaewae*, *mau rākau*, and *te reo*, within a health and well-being context, and to also provide credibility and dependability. A Kaupapa Māori research approach was used as a culturally approved research process and to also promote *Tino Rangatiratanga*. To achieve the purposes of this study, the qualitative research method of auto-ethnography was utilised to guide the data collection and analysis. Data collection involved (i) an extended literature review (research articles and other historical documents), and (ii) interview 'chats' with key Māori informants. With the additional influence of the researcher's personal knowledge and experience, a discourse analysis was then conducted with the psychology of physical activity literature to help determine the applicability of the Māori concepts to promote physical activity and serve as functions for motivation. Findings showed that the four Māori concepts were able to promote physical activity, as well as reflect certain components of the Self-efficacy Theory (Bandura, 1977), the Flow Theory (Csikszentmihalyi, 1975) and the psychological needs of relatedness, competence, and autonomy as proposed by the Self-Determination Theory (Deci Ryan, 1985). It is hoped that the findings will benefit Māori by providing culturally relevant information in terms of the psychology for physical activity.

## MIHI

I te taha o tōku nei pāpā,  
 Ko Te Arawa te waka,  
 Ko Ngāti Pīkiao te iwi,  
 Ko Te Takinga te marae,  
 Ko Motutawa te maunga,  
 Ko Ohau te awa,  
 Ko Pīkiao te tangata.

I te taha o tōku nei māmā,  
 Ko Te Rarawa te iwi,  
 Ko Tīnana te waka,  
 Ko Ngāti Moetonga te hapu,  
 Ko Roma te marae,  
 Ko Whangatauatia te maunga,  
 Ko Karirikura te awa,  
 Ko Tumoana te tangata.

Ko Jordan Aramoana Waiti tōku ingoa.

The above *mihi* acknowledges where I come from in terms of the kinship structure of *whenua*, *iwi*, *hapu*, and *whānau*. For this study, I position myself as a young Māori male using aspects of *Kaupapa Māori* to conduct research within the psychology of physical activity. As such, I endeavoured to include Māori terms when applicable, and the glossary at the end of the document provides suitable translations for those terms.

Heoi anō, i runga i taua whakāro, i te tuatahi, me mihi ki tōku nei whānau. Na to koutou āwhina me te manākitanga, i tutuki pai ahau i tenei rangahau. I aua wā e rangirua, e pōkeka hoki ana ahau, na koutou au i tiaki. Ano hoki ki toku whaea kēkē a Dr Marilyn Brewin, na tou tino mohio ki enei tumomo mahi rangahau i tutuki oku whakahaerengatanga. Nō reira tēna koutou.

Tuarua, he mihi hoki tenei ki ōku nei kaihautū, ko Dr Elaine Rose, ko Dr Mike Boyes, rātou ko Dr Ihirangi Heke. Tena koutou mo ta koutou arahina, manākitanga hoki, me te mahi uaua kei mua i a koutou, arā, te whakapai, te whakatikatika i tenei rangahau.

Ahakoia i tōroa te wā kia whakamutu au i ēnei mahi, ko te tumanako kua tūtuki inaianei.  
Heoi ano, ngā mihi mahana kia koutou.

I te tuatoru, he mihi hoki tenei ki ōku nei hoa, rātou i awhina ki te panui me te whakapai i oku tuhinga. Dr Pip Pehi, ngā mihi mo tou manāki me te aroha i ahau e mamae ana i ngā taumahatanga o enei tūmomo mahi. Nga mihi mahana hoki ki a koe.

No reira, hei whakakapi i ēnei mihi, me maumahara tātou ki taua whakatauki rongonui a Tā Apirana Ngata,

*‘E tipu e rea, mo nga ra o tou ao, ko to ringa ki nga rakau a te Pakeha hei ara mo to tinana: ko to ngakau ki nga taonga a o tipuna Maori hei tikitiki mo to mahuna: ko to wairua ki te Atua nana nei nga mea katoa’*

*‘Grow up, little one, in the way of your day and age, your hands grasping the tools of the Pakeha for your physical well-being, remembering in your heart the works of your ancestors which are worthy of being worn as a diadem upon your brow; your soul ever turned toward God, Who is the creator of all things.’*

Tēna koutou, tēna ra tātou katoa.

## CONTENTS

<b>ABSTRACT</b> .....	<b>i</b>
<b>MIHI</b> .....	<b>ii</b>
<b>CONTENTS</b> .....	<b>iv</b>
<b>CHAPTER I: TE TĪMATATANGA</b> .....	<b>1</b>
<b>CHAPTER II: NGĀ TUHINGA O INAIANEL</b> .....	<b>11</b>
Māori Health Perspectives .....	11
<i>Te Wheke (Pere, 1984)</i> .....	13
<i>Ngā Pou Mana (Henare, 1988)</i> .....	17
<i>Whare Tapa Whā (Durie, 1985)</i> .....	20
Rationale for the Whare Tapa Whā model .....	22
Te Whare Tapa Whā literature.....	25
Tikanga Māori.....	29
Physical activity .....	31
The Psychology of Physical Activity.....	32
Exercise Motivational Theories .....	32
<i>Self-Determination Theory (Deci &amp; Ryan, 1985)</i> .....	33
<i>Self-Efficacy Theory (Bandura, 1977; 1997)</i> .....	39
Māori concepts, Motivation, and Health.....	41
Kaupapa Māori literature .....	41
Conclusion .....	48
<b>CHAPTER III: NGĀ WHAKAHAERETANGA</b> .....	<b>49</b>
My world-view.....	49
Kaupapa Māori.....	49
Procedure .....	53
Data Collection .....	55
Data Analysis .....	58
The Researcher.....	59
Key Informants .....	60

Trustworthiness.....	63
The Scope.....	65
<b>CHAPTER IV: TE WHARE TAPA WHĀ ME NGĀ ARIĀ.....</b>	<b>67</b>
Taha Whānau .....	67
Marae .....	70
<i>Te hononga whānau (the whānau connection)</i> .....	79
Taha tīnana.....	81
Mau rākau .....	84
<i>Te hononga tīnana (the tīnana connection)</i> .....	90
Taha Wairua.....	91
Tūrangawaewae .....	94
<i>Te hononga wairua (the wairua connection)</i> .....	99
Taha Hinengaro.....	101
Te Reo.....	104
<i>Te hononga hinengaro (the hinengaro connection)</i> .....	108
Conclusion .....	109
<b>CHAPTER V: TAHA WHĀNAU.....</b>	<b>110</b>
The Psychology of Physical Activity and Marae.....	110
<b>CHAPTER VI: TAHA TĪNANA.....</b>	<b>127</b>
The Psychology of Physical Activity and Mau rākau.....	127
<b>CHAPTER VII: TAHA WAIRUA .....</b>	<b>139</b>
The Psychology of Physical Activity and Tūrangawaewae.....	139
<b>CHAPTER VIII: TAHA HINENGARO .....</b>	<b>153</b>
The Psychology of Physical Activity and Te Reo .....	153
<b>CHAPTER IX: NGĀ WHAKĀRO .....</b>	<b>158</b>
Te Whare Tapa Whā sustenance and physical activity promotion.....	159
<i>Taha Whānau</i> .....	159
<i>Taha Tīnana</i> .....	161
<i>Taha Wairua</i> .....	163
<i>Taha Hinengaro</i> .....	164
Common themes among the Māori concepts.....	166

Theoretical implications.....	168
Practical implications.....	171
Future recommendations.....	178
Conclusion .....	181
<b>REFERENCE LIST .....</b>	<b>182</b>
<b>GLOSSARY.....</b>	<b>207</b>
<b>APPENDIX A .....</b>	<b>216</b>
<b>APPENDIX B .....</b>	<b>218</b>

## CHAPTER I: TE TĪMATATANGA

In 1840, the Treaty of Waitangi was signed by the Queens representatives and *Tangata Whenua* (native people of the land) as a partnership document. According to Bishop (2003), 'it was supposed to be the formulation of a new nation-state' (p. 221). In essence, Māori believed that the Treaty was developed to serve three purposes, and these are often referred to as the three principles of the Treaty: 1) To establish a partnership between *Iwi* (tribe) or *Hapu* (sub-tribe) and the Crown, 2) for Māori to participate within society and particular sectors (such as welfare and education), and 3) to protect Māori, whereby Māori are guaranteed the same 'rights and privileges' as other New Zealanders (Durie, 1998a). However, among other things, statistics have shown that these purposes were not entirely fulfilled.

Although Māori population figures were declining as a result of European contact, depopulation accelerated following the signing of the Treaty of Waitangi. It has been estimated that there were approximately 150,000 Māori in the year 1880 (Durie, 1998b), by 1896 however, only 42,000 were present (Kingi, 2005). The main forces behind this population decline were introduced disease, social dislocation, and warfare (Kingi, 2005). Māori-owned land also decreased from 30 million hectares in 1840, to 15 million in 1852. By 1996, the figure stood at only 1.5 million hectares (Durie, 1998a). These examples illustrate the point that the benefits of the Treaty favoured the excess population of Britain who sought to relocate and settle within New Zealand (Bishop, 2003).

Following the signing of the Treaty of Waitangi, Māori health and well-being began to

deteriorate (Durie, 1998b). In fact, since the arrival of Captain Cook in the late 1700's, Māori health has become indirectly affected by colonialism and imperialism. For example, the indisputable relationship between Māori and the environment lost prominence during the years of land loss, and consequently, Māori health and well-being was compromised through the disassociation with the land (i.e. the loss of land, and control over land, fisheries, and waterways). Moreover, during the previous century, the state of Māori health was strongly affected by government policies that sought to integrate Māori, as opposed to acknowledging the indigenous viewpoints of Māori. As a result, statistics show that the incidence and mortality rates of the most common chronic and terminal diseases (e.g., heart disease, cancer, and diabetes) in New Zealand are still extremely high amongst the Māori population (Pomare et al., 1995).

Many elders believe that these health disparities all stem back to the colonial processes that contributed to the depopulation and land loss that heavily impacted on the welfare of Māori. The following quote by an elder of the Ngāti Kahungunu tribe, in Best (1929) further supports this belief. “Another source of weakness is the fact that the *mana* of the Māori has been abandoned...Māori folk have become Europeanized” (pp. 15). In contemporary times, the ‘urban drift’ (the relocation of many rural Māori to the cities for work) that resulted post World War II provided another challenge for Māori to assimilate and cope with a dominating and westernized society (Walker, 2004). Reduced family support, alcohol and drug misuse, smoking, over eating, long term unemployment and substandard housing were all to become new major risks to Māori health (Durie, 2001).

The Treaty of Waitangi has become a focus for contemporary Māori development (Durie, 1998a), in fact indigenous peoples around the world (e.g., the Kanaka Maoli of

Hawaii and the Native Americans of the United States) have faced similar difficulties in establishing themselves as distinctive populations within modern states. The alienation of physical resources was a significant factor that impacted on Māori economies and well-being, but the imposition of world-views, philosophies, and intellectual methodologies that were at variance with Māori perspectives, created additional difficulties. The 'Report on the Department of Māori Affairs' which received the popular title of 'The Hunn Report', offered solutions for Māori to 'integrate' into Pākehā society (Presbyterian Church of New Zealand, 1961). Although it was believed that the Hunn report provided suggestions for the 'integration' of Māori (Presbyterian Church of New Zealand, 1961), evidence (such as the negative health, education, and crime statistics) suggests that Māori participation and success was compromised by protocols and constructs that were blind to Māori psychologies, attitudes and values.

It is clear that Māori health suffered as a result of depopulation, loss of land, introduced disease, urbanisation, warfare and an unequal partnership in terms of participation within sectors of society. There are a number of avenues to help improve this situation, such as proper education, advocacy, and self-determination. The main approach that this thesis promotes to improve Māori health and well-being, is the self-determination of Māori through the incorporation of Māori world-views in wider society. As such, it is important at this point to consider what constitutes 'health' from a Māori perspective.

During the 1970's, Māori were becoming increasingly unrepentant towards the biophysical view of health held by Western practitioners (Durie, 1998b). Māori insisted that culture was linked to health, and such a narrow focus on the biophysical

determinants created a ‘distorted framework within which to consider health and to plan for the future’ (Durie, 1998b, p. 68). Several views emerged, however one such view that gained ready acceptance from Māori was a four sided health construct. Durie’s (1985) Whare Tapa Whā model of Māori health provides an understanding of health from a Māori perspective. Briefly, this model of Māori health uses the metaphor of a four-sided house, with each wall representing a cornerstone of health. The four cornerstones are referred to as *taha whānau* (family), *taha hinengaro* (cognitive), *taha wairua* (spirituality), and *taha tīnana* (physical). ‘Together these components blend to form an integrated and comprehensive model for health’ (Durie, 1985, p. 483). Fundamental to its representation is the notion that each cornerstone is necessary for strength and symmetry. More importantly, the Whare Tapa Whā model (Durie, 1985) provides a framework within which one can consider health from a Māori perspective. Considering such a perspective within different sectors of society can help acknowledge Māori thoughts and beliefs, as stated in Article II of The Treaty of Waitangi.

In recent years, Māori and the government developed an initiative entitled ‘He Korowai Oranga’, which aims to address the high levels of health ‘need’ among Māori. Māori have higher mortality and generally poorer health compared to other New Zealanders, irrespective of socio-economic position (Ministry of Health, Whakatākaka Tuarua, 2006, p. 32). The purpose of ‘He Korowai Oranga’ is to provide a framework to help the public sector support the health status of *whānau*, and ultimately achieve *whānau ora* (healthy families) (Ministry of Health, 2002). This strategy also supports *tangata whenua* (indigenous New Zealand Māori) led development in order to help achieve *Tino Rangatiratanga* (Māori self-determination). To help carry out the purposes of this

initiative, *kaiwhakahaere* (co-ordinators) are based within Regional Sports Trusts throughout the country. Their roles are to promote various physical activity programmes (such as team sports and cultural activities) to Māori. In line with the pathways to achieve the He Korowai Oranga goal of ‘healthy families’, and to also help overcome the health disparities facing Māori, an increased participation in physical activity can offer various health benefits.

Physical activity has been defined as ‘all movement produced by skeletal muscles that increases energy expenditure, whether it’s incidental, occupational or recreational’ (Ministry of Health, 2004, p. 89). Academics have known that physical activity is an important health habit, and researchers continue to examine the relationship between physical activity and health (Blair, 1995). Accordingly, there have been a number of investigations into the benefits that exercise and physical activity can offer to health improvement (see Morris, Clayton, Everitt, Semmence, & Burgess, 1990; and Paffenbarger, Hyde, Wing, Hsieh, 1986). Accordingly, regular physical activity has been shown to help prevent obesity, cardiovascular diseases, diabetes, some cancers, early mortality, as well as improve psychological well-being (Morris, Clayton, Everitt, Semmence, & Burgess, 1990; Sallis & Owen, 1999). The World Health Organisation (WHO) also stresses the importance of physical activity as beneficial towards overall health (2005). As such, major scientific and public health organisations are involved in promoting exercise and physical activity as part of an overall health enhancement strategy. Within the context of New Zealand, primary and secondary health care providers, and other government agencies associated with physical activity (e.g., Sport and Recreation New Zealand [SPARC], Physical Education New Zealand [PENZ]) are

examples of where Māori self-determination (or autonomy) can be evident through the inclusion of Māori world-views.

In 1994, the American College of Sports Medicine (ACSM) introduced a new recommendation for physical activity that has also been promoted for the New Zealand population, that ‘every U.S. adult should accumulate 30 minutes or more of moderate-intensity physical activity on most, preferably all, days of the week’ (Pate et al., 1995, p. 404). For Māori, the opportunity to do so is available through a number of health initiatives that have been mostly implemented over the last 10 years to help improve the state of Māori health (SPARC, 2001b). These include *Maraerobics*, *whānau* sport days, *Pā Wars* (inter-subtribal competitions), *waka ama* (outrigger canoeing), *hīkoi* (walking), the use of Māori role models, and *Marae*-based physical activities. Participation percentages show that young Māori (71%) and Māori adults (67%) are just as active as their European counterparts (70% and 69% respectively) (SPARC, 2001a; 2001b). However, of more concern are the obesity figures which show that; 28% of Māori females, 27% of Māori males, 17% of Māori girls, and 16% of Māori boys are obese (Ministry of Social Development, 2005). These statistics show that there needs to be other initiatives and frameworks that can positively influence Māori health-behaviour change. Motivational frameworks that incorporate Māori *tikanga* (concepts/practices), or are influenced by a Māori world-view, may provide Māori with the desired drive to increase levels of physical activity.

The psychology of physical activity is one such context that can provide Māori with cognitive forms of motivation to be physically active, and therefore help improve Māori health and well-being. The psychology of physical activity examines the psychological

processes that underpin the adoption and maintenance of regular physical activity and investigates the subsequent effect physical activity has on psychological well-being. To explain and predict behaviour, researchers draw on social cognitive theories of motivation. At the same time, the Whare Tapa Whā model of Māori health describes the fundamentals of health from a Māori world-view (Durie, 1985). Incorporating this model with theories of motivation derived from the psychology of physical activity – can possibly help explain the reasons why Māori may choose to be physically active. In other words, by incorporating Māori thinking and understanding into current psychological theory, it is hoped that physical activity among Māori may increase.

At this point, it is clear that Māori health has suffered, and inactivity is but one of the contributing factors. Furthermore, the evidence and health statistics (e.g., Durie, 1998b; Kingi, 2005; Ministry of Social Development, 2005; Pomare et al., 1995; SPARC, 2001a) suggest that inactivity can be considered a secondary contributing factor as a result of the primary factor of colonisation. To help overcome this state of affairs, this research proposed that linking Māori attitudes and beliefs into the psychology of physical activity can improve the health of Māori by motivating individuals to be physically active. Māori attitudes and beliefs can be best highlighted and explained by *tīkanga* Māori. In particular, the Māori concepts of *te reo* (Māori language), *marae* (customary meeting place), *mau rākau* (traditional weaponry), and *tūrangawaewae* (customary link with the land) were chosen as suitable examples which underpin the attitudes and beliefs of Māori. They were also chosen due to their ability to link within the cornerstones of the Whare Tapa Whā model of health (Durie, 1985), and for the fact that they are reasonably universal concepts among Māori. By incorporating Māori concepts into the psychology

of physical activity theories, it is hypothesized that Māori will be more akin to be physically active with the inclusion of culturally relevant motivational constructs.

Moreover, Article II of the Treaty of Waitangi states that Māori are guaranteed *rangatiratanga* (self-determination) over their lands, villages and all treasures. Māori consider all the facets that surround traditional *tīkanga* as treasures or *tāonga*. Thus, in order for Māori to maintain and promote self-determination, there needs to be more recognition (among other facets of wider society) of these *tīkanga* and their associated facets in physical activity contexts. In light of this, generation after generation of poor health performance can be pinned in whole or part to Crown breaches of Article II of the Treaty (Williams, 1991). In relation to the ‘same rights and privileges’ principle of Article III, the thoughts, emotions and motives for participation of Māori can be regarded as *tāonga* (assuming that they are framed from a Māori perspective), again signalling the need for recognition. Thompson, Rewi, & Wrathall (1996) sum this up by stating that “there is a need to acknowledge and respect Māori views, Māori ways of doing things” (p. 247).

At present, there is a lack of published research or literature that attempts to apply Māori concepts to any aspect of the psychology of physical activity and motivation. Whether it is an investigation of Māori psychology concepts, or a study that relates aspects of *Māoritanga* (Māori culture) to the psychology of physical activity and motivation, there is no literature that is of immediate relevance. Consequently, there is a very important need to develop psychological literature that acknowledges a Māori world-view. Doing so can help consider the effects that Māori concepts can have on the motivation to be physically active, as well as its relevance and relationship with Western

psychology views. The following quote by Durie (1999a) sheds light on this notion:

Attempting to define a Māori psychology is probably an overly pretentious aim since there is no single Māori psychological world nor is there agreement about what constitutes the uniqueness of Māori thinking styles, or the extent to which people assimilate values, concepts and beliefs as they move from one world to another. (p. 351)

Therefore, rather than define a Māori form of psychology, this study attempted to incorporate Māori thinking and understanding into current psychological theories. This illustrates the role that Māori concepts can play in motivating Māori to be more physically active, and therefore influence health through the Whare Tapa Whā model. Specifically, the following Māori concepts that were investigated and categorised under one of the cornerstones of the Whare Tapa Whā model were:

Taha Wairua (spiritual)

- *Tūrangawaewae* (customary link with the land)

Taha tīnana (physical)

- *Mau Rākau* (traditional weaponry)

Taha Whānau (family)

- *Marae* (customary meeting place)

Taha Hinengaro (mental/cognitive)

- *Te Reo* (Māori language)

Finally, the following questions were designed to help provide focus for the investigation of each concept:

- 1) What are the major tenets that underpin the concept?

- 2) How can the concept reflect the Whare Tapa Whā model?
- 3) How can the concept promote physical activity?
- 4) How can the concept positively influence Māori to participate in physical activity?

In conclusion, and in light of the current state of Māori health, the purpose of this study was to investigate the adequacy of various Māori concepts to function as motivational strategies for Māori to conduct physical activity, and consequently, improve health and well-being. In a wider sense, the intention of this study was to explore the interface between Māori philosophies and the psychology of physical activity, in order to develop literature in where both dimensions might be reflected. Māori values, concepts and world-views may be more likely to motivate Māori than exclusively Western ideals. Accordingly however, many Māori do not have sufficient access to *Māoritanga* (Durie, 1998b; 1999b) If Māori have better access to Māori concepts, then they are more likely to be enthusiastic about physical activity, or health, or education.

## CHAPTER II: NGĀ TUHINGA O INAIANEI

The previous chapter outlined the effects of colonisation on Māori society, and the subsequent effects on Māori health. It also introduced the proposal that more recognition of Māori psychologies in the physical activity and health domains may lead Māori to become more motivated to be physically active. Māori health perspectives can also be utilised as frameworks to create change. This chapter reviews the current literature in regards to Māori health perspectives. In addition, certain psychology of physical activity motivational theories will be discussed in this literature review as they can provide a physical activity-motivation specific theoretical basis. The use of the Kaupapa Māori research paradigm in other studies is also discussed in order to highlight its applicability as a research paradigm.

### *Māori Health Perspectives*

During the 1970-80's, some Māori were becoming increasingly concerned that the national health system was biased towards Western philosophies and practices (Durie, 1994). Māori felt that relationships with the health system were failing. Māori felt alienated, and not because of poor access and inadequate care, but because there was a lack of a decision making role for Māori (Durie, 1998b). As a result, Māori were over-represented in most aspects of ill-health such as lower life expectancy (Pomare et al., 1995) and high hospital admissions (Durie, 2001). Moreover, Māori were unimpressed with the overemphasis on the physical and biological constructs that were strongly

evident through medical practices (Durie, 1998b). Māori felt that the World Health Organization (WHO) definition of health, which only emphasised physical, mental and social dimensions, insufficiently captured the Māori perspective of health (Durie, 1985). Despite a century and a half of colonisation, Māori still believed that good health could not be entirely gauged by measures such as weight and blood pressure, rather, spiritual and emotional considerations were equally important (Durie, 1998b). As part of a campaign for change, more direct involvement of Māori in health care and the introduction of Māori health perspectives were seen as important steps. Māori health workers and Māori in general, began to advocate understandings of health that made sense to Māori, were derived from Māori concepts, and provided Māori with a sense of ownership over their own health (Pomare et al., 1995). Consequently, at a national health conference in 1984, holistic care was emphasised to counter the perceived narrow focus promoted by doctors (Durie, 1998b). As a result, these Māori health perspectives were a way of conceptualising health and well-being from a Māori world-view, and were ‘welcomed because they provided the necessary framework within which a semblance of ownership over health could be entertained’ (Durie, 1998b, p. 73).

The three main Māori health models that were developed as a result of these motions for change were ‘Te Whare Tapa Whā’ (Durie, 1985), ‘Te Wheke’ (Pere, 1984), and ‘Ngā Pou Mana’ (Henare, 1988). Each model gained acceptance from Māori and were developed simultaneously. They were also developed by different sectors of society (in particular ‘Ngā Pou Mana’ which was developed by the Ministry of Social Development), but all still served the same purpose of providing Māori with health perspectives that were culturally relevant. Each of these models are now outlined to

illustrate their themes, and critiqued to exemplify their ability to represent health from a Māori perspective.

Te Wheke (Pere, 1984)

In 1984, Pere developed a perspective on health called *Te Wheke*. The Octopus (*Te Wheke*) metaphor was used to help describe the major aspects of health from a Māori perspective. For example, the body and the head represent the individual, and each of the eight tentacles represent a component that gives sustenance to the whole, each of which is outlined below (Pere, 1984). The suckers on each tentacle represent the many aspects that exist within each component, and ‘the eyes reflect the type of sustenance each tentacle has been able to find and gain for the whole’ (Pere, 1984, p. 1). The intertwining of the tentacles represents the mergence of each component with the others. Therefore, it is important to consider these components in relation to each other, and within the context of the whole. While it is convenient to consider each aspect separately, Māori understanding tends to come from a holistic synthesis rather than an emphasis on individual components (Durie, 1998b).

The *Wairuatanga* aspect is concerned with spirituality. This model regards the recognition of spirituality as fundamental to health. The importance of *Io* (the Supreme-being) is used to illustrate this aspect, as generations passed down numerous incantations and traditions to give sustenance and meaning to this spiritual existence (Pere, 1984). Thus, the closest Māori can get to *Io* is by retaining and uplifting the unique identity he has given Māori. No better setting to achieve this than the environment, as ‘the natural place of worship/communion with *wairua* is *Papatuanuku* (Earthmother), where one can relate to the hills, spaces of water, the heavens, and everything that is a part of us’ (Pere,

1997, p. 16). The recognition of spirituality does not have to be totally concerned with religious worship, but rather the acceptance of possibilities within the spiritual realm (i.e., between the person, the situation, and the environment).

The *Mana Ake* (uniqueness) tentacle is concerned with the inherited uniqueness of an individual and the family. The *mana tīpuna* and *mana whenua* that is attained by an individual and *whānau* is determined by their *whakapapa* (genealogy). Such that *mana tīpuna* is prestige/authority/power that is vested through ancestors, and *mana whenua* is that attained through customary land (Mead, 2003). Pere (1984) applies this element to a *whānau* setting by stating that ‘if a family receives sustenance that gives them a positive identity with their ‘*mana*’ intact – then that family will have the strength to pursue those goals and those assets that can uplift them (p. 1)’. This can also apply to an individual. *Whaikōrero* (traditional oratory) utilise the various forms of *mana* by referring to the *mana whenua* and *mana tīpuna* of the surrounding mountains, lakes, rivers and courtyards (Pere, 1997). Therefore, ‘*mana ake*’ acknowledges the importance of the different traits in ones’ life. Furthermore, this aspect reinforces the importance of *whānau* and social settings on health.

The *Mauri* (life principle, ethos) tentacle emphasises the notion of a ‘life-source’. Mead (2003) defines *mauri* as ‘the spark of life, the active component that indicates the person is alive’ (p. 53). Durie (1998b) also describes it as ‘the life-sustaining principle resident in people and objects, including language’ (p. 74). Pere (1984) extends on these definitions by stating that if great importance and support is given to the *mauri* of each individual, in time the individual and family will appreciate the *mauri* in other people, the *mauri* in *marae*, and the *mauri* within the rivers, lakes, seas, and mountains. ‘*Mauri*’

reinforces the importance of recognising the links with people and the environment, and how these relationships can affect the health of a person.

The '*Hā A Kui Ma A Koro Ma*' (the 'breath of life' from forebears) tentacle, describes how an individual must have an in-depth knowledge of heritage and *whakapapa* in order to progress prosperously in life. Pere (1984) goes on to state that there is a basic belief that the future is linked to the past, and therefore if there is a good understanding of heritage then personal and cultural identity will remain intact. People 'who have had their heritage transmitted to them have a strong central core, and are able to become universal people' (Pere, 1984, p. 2). By acknowledging the practices and beliefs of our forebears, one can develop a positive attitude towards these *tāonga* (treasures) (Pere, 1997). This element acknowledges the importance of knowing 'where you come from' in order to maintain *mana*, self-esteem and self-assurance.

The next tentacle, *Taha tīnana*, is concerned with the physical side of health. Pere (1984) states that this includes everything pertaining to physical survival (e.g., medication, suitable food, clothing, appropriate shelter, and recreation). Furthermore, there is even greater importance placed on the body, especially the head, as this body part is extremely '*tapu*' with its own associated restrictions. *Tapu* can be defined as 'forbidden' or 'restricted' (Shirres, 1994, p. 5) and basically places a 'restriction' on anyone or anything. For example, if someone were to drown in a river or other such waterway, a *rāhui* would most often be placed on the area until the *tapu* has been lifted. Thus there needs to be greater recognition of these restrictions and the suitable aspects and/or behaviours required for physical survival. This element acknowledges the importance of recognising and respecting aspects of *tapu* that pertain to the physical body

and to the maintenance of safety.

The sixth tentacle, *Whanaungatanga* (the extended family, group dynamics), is based on ‘both sexes and all generations supporting and working together’ (Pere, 1984, p. 2). It is ideal that all families within the community interact in a positive manner to their collective advantage. The family and individuals achieve sustenance for this dimension when they feel that they have contributed to the well-being of the extended family and the community (Pere, 1984). Moreover, it is important that Māori children are educated about *whakapapa* and exposed to the kinship group from a young age and throughout their lives (Pere, 1984). Essential to this aim is a sense of closeness and affection within the kinship group so as to engender pride, unity and a sense of belonging (Pere, 1997).

The seventh tentacle, *Whatumana* (the emotional aspect) is concerned with the emotional development of both the individual and the family as a whole (Pere, 1984). Moreover, it is ideal that children express their emotions so that the older members of the kinship group know how to ‘support, encourage and guide the children’ (Pere, 1984, p. 3). Pere (1997) also proposes that there is both a positive and negative side to every emotion. For example, crying for sadness and joy is considered normal and healthy, and not a weakness. The tears are considered to come from sacred pools of healing (Pere, 1997).

The last tentacle, *Hinengaro* (the mind) is concerned with ‘approaches of learning that arouse, stimulate and uplift the mind’ (Pere, 1984, p. 3). This principle of health requires the constant use of all the mind’s senses to help develop higher learning and correct mind innervation (Pere, 1984). Furthermore, the conscious mind processes of *Mātauranga Māori* (Māori education) which includes intuitive intelligence, has also been regarded as

a direct link to *Io* (Pere, 1997).

If each tentacle/fundamental is adequately fulfilled and intertwined with the others, then the individual and family will be in a state of *Waiora* (total well-being), represented by the eyes of the octopus (Pere, 1984). *Waiora* is what Pere (1984) defines as ‘health as shared with me by my elders’ (p. 3). This model of an ideal state of health proposed by Pere (1984, 1997) provides guidelines for understanding Māori views on health and creates a framework to help attain high standards of health.

Ngā Pou Mana (Henare, 1988)

In 1988, the Royal Commission on Social Policy described another model of Māori health which uses the metaphor of four supports. Although developed primarily to develop social policies and social well being, it still has relevance for health (Durie, 1998b). Entitled Ngā Pou Mana (the supporting poles), each of the four poles enhances the *mana* (authority, prestige), the self-esteem, and the self-integrity of individuals (Durie, 1994). This model also acknowledges the importance of an economic base for health, and recognises environmental management as a basis for health development (Durie, 1994). There are four key sets of supports that constitute Ngā Pou Mana: *Ngā tāonga tuku iho* (cultural heritage), *Whanaungatanga* (extended family), *Te ao tūroa* (the wider physical surroundings), and *Tūrangawaewae* (an intimate link with land). Within each of these supports are other key concepts (e.g., the Māori language and customs) that contribute to their basis, and provide guidelines to ensure proper representation and the maintenance of tribal, family, and individual *mana*.

*Ngā tāonga tuku iho* describes the cultural traditions ‘upon which intellectual and philosophical traditions are based’ (Durie, 1994, p. 198). An example is the resurgence of

*waka ama* (outrigger canoe), which builds on customary approaches to sport and gives Māori an alternative to the sport of rowing. Within this support also are the intrinsic concepts of *ngā kete mātauranga* (the baskets of knowledge), *tīkanga* (traditional customs), *ritenga* (rites), and *te reo rangatira* (Māori language) (Henare, 1988). This support is important to health because it draws upon the many traditions and customs that were handed down by ancestors. Disregarding these *tāonga* impinges on one's *mana* and consequently, personal health is affected.

The *Whanaungatanga* support describes the importance of the extended family. For example, despite the distances that may be present between members of a family as a result of the 'urban drift', spiritual, emotional, and communicative links must still reside in order to remain 'calm' and 'at ease with one's self'. Within this support also, are the intrinsic concepts of *iwi* (tribe), *hapu* (sub-tribe), *whānau* (family), *waka* (canoe), *tohatoha* (sharing), *whakapapa* (genealogy), and *manāki* (caring) (Henare, 1988). This support is important to health in regards to maintaining links with one's *whānau* to ensure that the *mana* of the *whānau* remains intact. This support also relates to the *whanaungatanga* tentacle of the Te Wheke model, as both dimensions are concerned with a strong relationship with the immediate and extended family as a function of good health.

'*Te ao tūroa*' reflects the strong links Māori have with the environment. An example of this is the personification of *maunga* (mountains) by Māori. Descendants of the Tūhoe tribe consider themselves offspring of *Maungapōhatu* (the tribal mountain) and *Pūkohurangi* (the mist), and thus they refer to themselves as the 'children of the mist'. Therefore, linking one's self to *Papatuanuku* (Earthmother) is important in upholding

*mana* and integrity. Other concepts that relate to *te ao tūroa* include *whenua* (land), *ngāhere* (forest), *awa* (river), *moana* (sea), *ahi kaa* (keeping the home fires burning), and *raupatu* (confiscation) (Henare, 1988). This ‘supporting pole’ is important to health because it emphasises the importance of land to Māori. The first chapter outlined the negative effects that land loss had on the health of Māori, and this model further perpetuates the significance of being able to link physically and mentally to the land and environment.

The *tūrangawaewae* support reflects a sense of belonging and being ‘grounded’. It explains why *marae* are so important to Māori (Durie, 1994). Furthermore, access to one’s *marae* bestows *tangata whenua* (people of a given place) status upon an individual, and a lack of access to such an institution and prestige can be considered a risk to identity formation (Durie, 1994). In addition, within this support are the customs of *papakāinga* (homeground), *manuhiri* (visitors), and *kohā* (gift giving) (Henare, 1988). The importance of this pole is similar to that mentioned for ‘*te ao tūroa*’, in where links are maintained with the environment. There is also an added aspect of practicing and conducting societal tasks within one’s *tūrangawaewae* (customary link with the land) and *marae*. Doing so, positively influences cultural identity – a central fundament of *mana*.

It is clear that the aspects of this model place a strong emphasis on upholding the dignity of individuals. The model provides some guidelines to help maintain a strong cultural identity through providing a number of Māori concepts that serve to uphold the integrity of individuals within a Māori cultural framework. Consequently, this model strongly emphasises the concept of *mana* as a dominant force required for good health and well-being.

Whare Tapa Whā (Durie, 1985)

In 1982, the concept of health as being an integration of *wairua* (spiritual), *hinengaro* (cognitive), *whānau* (family), and *tīnana* (physical) was discussed at a *hui* for the Rapuora research project of the National Woman's Welfare League. It was from this *hui* that Durie (1998b) drew these themes together and proposed a model of health founded on the 'four basic ingredients for good health' (p. 69). The following quote found in the *Rapuora* report by Murchie (1984) further explains the importance of these themes and the inclusion of a spiritual and family component:

To say that a person is a psychosomatic unity, a personality formed jointly by physical and mental processes, only partly embraces the Māori concept. A study of Māori health must follow more than two strands. *Tīnana* is the physical element of the individual and *hinengaro* the mental state, but these do not make up the whole. *Wairua*, the spirit and *whānau* the wider family, complete the shimmering depths of the health *pounamu* (greenstone), the precious touchstone of Māoridom. (p. 81)

This four part health perspective was presented by Durie at two more *hui* in 1982 and 1983. Finally, it received national attention in 1984 at Te Hui Whakaoranga. This was the first major Māori health conference where Māori leaders, Māori health professionals and representatives from the Ministry of Health were all present to discuss issues relating to Māori health. In effect, the model was developed as a result of the inadequate WHO definition of health. A need for Māori to relate to (and claim to a larger extent) health care on their own terms, and a greater emphasis on health as a positive construct rather than ill-health statistics was needed (Durie, 1998b).

Durie (1998b) compares the Whare Tapa Whā model of Māori Health to the four sides of a house. Each side of the house represents an aspect of health: *taha tīnana* (physical side), *taha wairua* (spiritual side), *taha whānau* (family side), and *taha hinengaro* (cognitive side). An underlying requirement of this model is that each cornerstone is equally represented within an individual, *whānau*, *hapu*, and *iwi*. Achieving a sense of balance and integration is integral to the well-being of individuals and groups. By using the metaphor of a house, all four walls need to be represented to ensure strength and symmetry (Durie, 1998b). Thus, if an individual is lacking in one of the cornerstones, or he/she disregards the importance of one of the cornerstones, then health risks are more likely. The following paragraph will briefly outline each cornerstone, however, these are discussed in-depth in later chapters when the links with the Māori concepts are illustrated.

*Taha wairua* can be considered the most essential element of health (Durie, 1985, 1994, 1998b). This element of health is strongly focused on spiritual awareness and the ability to understand the link between the person, the situation, and the environment. *Taha hinengaro* is concerned with the expression of thoughts and feelings (Durie, 1998b), as well as the control of behaviour (Durie, 2001). Furthermore, Māori tend to adopt a holistic and integrative style of thinking as opposed to an analytical one. The understanding of phenomena and situations ‘occurs less by division into smaller and smaller parts, than by synthesis into a wider, contextual system’ (Durie, 1985, p. 484). *Taha tīnana* focuses on aspects of bodily health (such as motor control, physiology, biology, and anatomy). For this cornerstone, an added emphasis on the clear separation of *tapu* (sacred) and *noa* (free from restrictions) is required (Durie, 1998b). Finally, the

*Taha whānau* involves extended kinship ties, and Durie (1998b) has identified two important considerations. First, the family is the prime support system for Māori. By providing care and nurturance, the family provides support both in physical terms and culturally and emotionally. Second, unlike the European emphasis on self-realization and self-sufficiency, a Māori world-view emphasises interdependence between siblings, cousins, and all *whānau* members, in order to promote *whānau* identity and a sense of belonging.

In conclusion, this model emphasises the need for balance between the four aspects in order for good health. With reference to the house metaphor and the holistic thinking of Māori, Te Whare Tapa Whā promotes the integration and representation of all four cornerstones as being important characteristics for health, vitality, and well-being (Durie, 1985).

#### *Rationale for the Whare Tapa Whā model*

Having provided a brief outline of the Māori models of health and Māori health perspectives, it is useful to compare the three models in order to distinguish which model would better suit the purpose of this research. There are a couple of notable differences and similarities between the Te Wheke and Whare Tapa Whā models. Firstly, the Te Wheke model acknowledges the four cornerstones (spiritual, physical, family, and cognitive) that are proposed by the Whare Tapa Whā model through its various ‘tentacles’. Although the definitions of each may be slightly different, in essence they both acknowledge the same Māori concepts. Secondly, Te Wheke is somewhat different as it categorises *Mana Ake*, *Mauri* and *Hā A Koro Ma A Kui Ma* as their own distinct

elements. It can be suggested that each of these three elements can fall within one of the Whare Tapa Whā cornerstones (e.g., *taha whānau* and *taha wairua* can accommodate the three Te Wheke elements mentioned above), but by distinguishing them in Te Wheke, they receive further recognition and importance. Importantly, however, the Whare Tapa Whā implicitly recognises these concepts in order to uphold the symmetry and metaphor of the house.

There are also differences and similarities between Ngā Pou Mana and the Whare Tapa Whā. The main differences are the incorporation of the *tāonga tuku iho*, *ao tūroa*, and *tūrangawaewae* elements within Ngā Pou Mana. The definitions of these titles do not correspond directly to the aspects proposed by the Whare Tapa Whā model, however upon closer inspection and interpretation, the broad definitions of the Whare Tapa Whā cornerstones still offer the opportunity to accommodate the underlying elements of these three Pou Mana. For example, the *tāonga tuku iho* element of Ngā Pou Mana is similar to the *taha hinengaro* aspect of the Whare Tapa Whā model, as they both emphasise the importance of Māori intellectual traditions such as *tīkanga* to guide learning.

Ngā Pou Mana also places a strong emphasis on *mana*. *Mana* is very important, but the Te Wheke and Whare Tapa Whā models also consider other elements as equally important in order to achieve good health. Durie (1994) suggests that the Ngā Pou Mana model moves away from a solely human focus towards one that also incorporates the environment and historical dimensions. Again it can be argued however, that the holistic nature of the Whare Tapa Whā model especially, offers an aspect that acknowledges the environment and land (*taha wairua*). This holistic approach is the ‘recognition of events, objects, and processes based on their similarities rather than their differences’ (Durie,

2001, p. 172). Through the broad definitions and emphasis on spirituality, there is strong evidence to suggest that the Whare Tapa Whā model and aspects of Te Wheke offer the possibility of acknowledging a historical dimension. For example, the *Hā A Kui Ma A Koro Ma* element of Te Wheke relies on traditional and historical knowledge in order to provide sustenance to this element. The *taha wairua* cornerstone requires some historical and traditional knowledge (such as *whakapapa*) to gain spiritual awareness.

At present, there has been no formally published mention of which model is more accepted by Māori as a representation of Māori health perspectives. Perhaps there is no need, as the different models maybe more applicable/appropriate for different situations. After conducting a broad literature review on each of the three models, it was found that there was insufficient literature surrounding the Te Wheke and Ngā Pou Mana models. From an observation of the literature surrounding Māori models of health, the bulk of the research seems to largely involve the use of the Whare Tapa Whā model. This may suggest that the Whare Tapa Whā model is more accepted as representing Māori Health and as Durie (1998b) proposed, it was ‘simple, even simplistic...that was also its appeal’ (Durie, 1998b, p.73), and because (like the other models) it was developed when Māori were attempting to redefine health and regain a positive role in shaping the health services (Durie, 1998b). The Whare Tapa Whā model is also one of the four underlying concepts of the New Zealand Health and Physical Education curriculum (Ministry of Education, 1999), therefore underlining its mainstream credibility as it is recognised in an official government document.

In conclusion, the Whare Tapa Whā model has been chosen for this study because of the broad conceptualisation of the four cornerstones, and in line with the holistic views of

Māori, numerous aspects of both health and *Māoritanga* can be accounted for. The Whare Tapa Whā model seems flexible, as it offers the possibility to encompass a number of various Māori concepts/aspects in regards to everyday health and well-being. The evidence within current literature (such as its inclusion in the New Zealand Health and Physical Education curriculum) suggests that the Whare Tapa Whā model is an accepted representation of Māori views on health. Additionally, previous research has highlighted its use and application as a research tool (e.g., Kingi & Durie, 2000; Morrell, 2003; Scott, Sarfati, Tobias & Haslett, 2000).

#### *Te Whare Tapa Whā literature*

At present there have been no academic research studies that have utilised the Whare Tapa Whā in a similar context to this study. However, the Whare Tapa Whā model has been applied and researched within the disciplines of education (Ministry of Education, 1999), general health (Scott et al., 2000), mental health (Kingi & Durie, 2000) and supervision (Morrell, 2003), to show its use as a framework to work from and also highlight its representation of a Māori view of Health.

In 2000, Scott, Sarfati, Tobias, and Haslett investigated (among other things) whether the Short Form (SF)-36 health survey questionnaire (an instrument designed to measure health-related quality of life) supported Māori and Pacific Island health beliefs. In relation to traditional views of health and Durie's (1985) Whare Tapa Whā model, the authors proposed that the two-dimensional (physical and mental health) structure of the SF-36 found in Western European countries may not replicate among Māori and Pacific people. The SF-36 was administered to Māori as well as a number of Pacific and

European people. The results showed that the two-dimensional (physical and mental) structure of the SF-36 questionnaire corresponded to the outlook on health observed by Māori under the age of 45. The authors suggested that this more westernised view (i.e. mind-body dualism) may be due to the fact that this age group has become urbanised and therefore cultural identity and affinity has been somewhat weakened (Scott et al., 2000). In terms of the proposed study, the literature that will be developed may provide this age group with a better understanding of the link between physical and mental well-being by acknowledging traditional *tikanga* (concepts/practices) and relating them to physical activity and modern society. The lack of significant improvement in Māori Health suggests that maybe a culturally defined view of health may help achieve such a level.

In contrast to the result above, the findings showed that a single combined (physical and mental) factor only emerged in the older Māori age group (over 45). This single combined (physical and mental) factor was consistent with the traditional Māori view of health which is holistic, and does not categorise physical and mental health as functioning independently of each other, but rather, an integration of the four cornerstones of health. This is supported by Durie et al. (1996), who found that older Māori tend to follow a more traditional lifestyle with a stronger *iwi* affinity and identity. By using the Whare Tapa Whā, this research recognises the importance of the single factor (physical and mental) view because it incorporates spiritual, cognitive, and family aspects under both the physical and mental views of health.

Bassett, Mavoa and White (1999) investigated the health and illness beliefs of Ngāti Tama descendants. In essence, the authors sought to explore the beliefs of contemporary Māori in relation to the Western biomedical models and those of traditional Māori views

(e.g., Te Whare Tapa Whā and Te Wheke). To achieve this, a member of the Ngāti Tama *iwi* conducted semi-structured interviews with 19 participants. The results showed that some beliefs of the participants corresponded to Māori models of health, while others corresponded to Western orthodox medicine. The Western influence was more evident within the illness beliefs, as the majority of respondents defined illness as the opposite to health. Meanwhile, the traditional Māori views corresponded, and were reflected more so, with the health beliefs as the majority of respondents believed that health was a balance between the physical, mental, emotional, and spiritual aspects of an individual (Bassett et al., 1999). Moreover, the Te Wheke model (and more specifically, the *whanaungatanga* tentacle) seems to correlate more to these health beliefs than the Whare Tapa Whā model, as the ‘individuals relationships with the community and environment’ theme was strongly evident alongside the physical, emotional, cognitive and spiritual components (Bassett et al, 1999). However, the holistic nature and broad definitions of the Whare Tapa Whā model can still accommodate this relationship with the community and the environment (i.e. within the *whānau* and *wairua* aspects of the model).

Kingi and Durie (2000) used the Whare Tapa Whā model to help develop ‘Hua Oranga’, a Māori measure of mental health outcomes. To achieve this, each cornerstone of the model was placed within a mental health context to provide a client/patient/consumer focused holistic measure of the outcomes, in regards to the effectiveness of treatment and care. In addition, outcome perspectives of the three stakeholders were considered as this provided the opportunity to explore and collate their views. Thus clinical views, *tangata whaiora*/client views, and *whānau* views on Māori mental health outcomes were considered. Clinical end points were also identified to help

improve the outcome assessments. The clinical end points suggested by the report include; assessment, inpatient treatment, outpatient treatment, community support, and community care. 'Te Hua Oranga' is thus, a cultural tool that has been developed to provide culturally relevant outcome measures for Māori mental health consumers (i.e. both the clients/patients and their families). The authors stress however, that the tool will be of most use when applied in conjunction with existing clinical tools that have targeted measures, or in situations where a culturally related outcome is relevant or expected. Finally, the tool is utilised to determine the responses of 'Māori clients to care and treatment in mental health settings' (Kingi & Durie, 2000, p.2). This study is important as it highlights the ability of Te Whare Tapa Whā to provide a framework that can accommodate different aspects of health, as well as provide foundational support for new models/frameworks. This ability to serve as a framework is also shown within the study by Morrell (2003).

To help with professional development, Morrell (2003) investigated a number of frameworks to help develop a reflective practice for professional supervision. She proposed that a number of obstacles exist to incorporating reflection time into supervision practice, but the principal obstacle was the lack of a framework to guide post-session reflection (Morrell, 2003). Morrell (2003) discusses the Whare Tapa Whā model as a framework in light of its 'consistent theme of integration', and therefore the importance of the supervisor in monitoring the overall health and well-being of the supervisees. To help achieve this, Morrell (2003) suggests some of the following questions to assist reflection:

*Taha Wairua:*

- 1 Do I relate to this person in a balanced way?
- 2 Do I understand what they think, their belief system?

*Taha Whānau:*

- 3 Do I know about the supervisee's other support systems?

This study was successful in providing specific reflective questions under the Whare Tapa Whā framework. This study showed how the Whare Tapa Whā model is capable of providing a framework from which a number of queries or shortcomings in relation to health - can be answered and explained.

In conclusion, previous research highlights the Whare Tapa Whā's ability to explain health, as well as its application as a tool and/or framework for health research. However because this current study is the first to draw together a Māori world-view and Western psychology, at present there are no research studies of immediate relevance or similarity to this study and its research processes. There is no literature that relates Te Whare Tapa Whā within the context of this current study. Consequently, utilising the Whare Tapa Whā for this study branches the model into another aspect of health. This can further extend its usefulness for health research.

*Tīkanga Māori*

Evident within the Whare Tapa Whā model is the strong inclusion and recognition of *tīkanga* Māori. Since the creation narrative of *Ranginui* (Skyfather) and *Papatuanuku* (Earthmother), *tīkanga* Māori have guided all facets of life and formed the basis of *Māoritanga*. Defining *tīkanga* Māori is a difficult task as interpretations are varied

(Mead, 2003), and definitions/meanings of various *tikanga* have become blurred with time. Williams (1971) defines *tikanga* as a ‘rule’, ‘method’, ‘habit’, or ‘custom’ (p. 416), and Ryan (1995) defines it as obligations and criterion, which direct various proceedings. Accordingly, Mead (2003) refers to *tikanga* as a form of Māori ethics. From a Māori world-view, these traditional customs/practices pertain to all aspects of life, such as housing, education, socialisation/communication and well-being (Mead, 2003). In traditional times, *tikanga* were maintained and practiced to ensure the health and survival of Māori (Kingi, 2005).

This emphasis on maintaining the health and well being of Māori indicates the importance of Māori concepts to Māori, as well as the integral link to health. The Whare Tapa Whā model of Health provides a framework which incorporates Māori concepts to describe health from a Māori perspective. Moreover, Kingi (2005) points out that the Whare Tapa Whā model is not necessarily a traditional model of health, but rather it is a contemporary model ‘through which traditional concepts can be articulated’ (p. 12). Therefore, highlighting the importance of linking Māori concepts within the Whare Tapa Whā model. This positioning of Māori concepts can be also explained and exemplified by the more contemporary Kaupapa Māori paradigm which is explained later in the chapter.

For the purpose of this study, *tikanga* Māori will be referred to as Māori concepts. The term concept is defined in the Oxford Dictionary as a ‘general notion, a theme’ (Simpson & Weiner, 1993, p. 467), and the Collins Dictionary refers to the term as a ‘general idea or notion that corresponds to some class of entities’ (Butterfield, 2003, p. 350). In this case, the *tikanga* are regarded as ideas/themes or notions which pertain to the entity that is *Māoritanga*. Within the viewpoint of this research, Māori concepts provided the

culturally relevant perspectives to view health, and ultimately, provide cultural mechanisms for participation in physical activity.

The four specific Māori concepts that this research focused on were the *marae*, *mau rākau*, *tūrangawaewae*, and *te reo*. The concept of *marae* pertains to the customary meeting place or meeting forum of Māori. The concept of *turangawewae* can be defined as one's customary link to the land (be it a specific area or region), or a 'place of belonging' (Ka'ai & Higgins, 2004). The concept of *mau rākau* pertains to the traditional practice of *taiaha* (long-staff weapon). Finally, *te reo* is the Māori language. Each of these however, are discussed in detail in Chapter IV.

### *Physical activity*

For the purposes of this study, the term 'physical activity' will be used because it incorporates exercise, sport, leisure, and recreational activities (Thogersen, Fox, & Ntoumanis, 2002). Physical activity can be described as 'any bodily movements produced by skeletal muscle that results in energy expenditure' (Caspersen, Powell, & Christenson, 1985, p. 126). Whereas exercise on the other hand, is a subset of physical activity, which involves 'planned, structured, and repetitive bodily movements' (Caspersen et al., 1985, p. 126). By focusing on physical activity as such, bodily movements associated with leisure and recreation can be incorporated as well as structured exercise. Consequently, there is more scope to illustrate the relationship between physical activity and the chosen Māori concepts.

### *The Psychology of Physical Activity*

Representing the convergence of psychology, physical activity, and exercise science, the field of psychology of physical activity is concerned with (a) the application of psychological principles to the promotion and maintenance of physical activity, and (b) the psychological consequences of physical activity (Lox, Martin & Petruzzello, 2003). In this case, the psychology of physical activity and the Whare Tapa Whā are indirectly linked. The psychology of physical activity provides an explanation for physically active behaviour, and promoting physical activity behaviour is beneficial to health (as in the four cornerstones of the Whare Tapa Whā). In other words, the psychology of physical activity explains how individuals can be encouraged to be physically active (i.e. a health behaviour), and 'health' in a Māori sense has been shown to be represented by the Whare Tapa Whā model (Durie, 1985). For example, psychological strategies can positively enhance one's attitude towards physical activity, and therefore improve the individual's health (Lox et al., 2003). For the purpose of this study, the psychology of physical activity can explain why the Māori concepts can motivate individuals to be physically active and thus achieve health. The following section provides an outline of specific motivational theories from within the psychology of physical activity.

### *Exercise Motivational Theories*

*Māoritanga* (Māori culture) is not specifically recognised within the psychology of physical activity motivational theories. Therefore, this review of literature draws upon articles that utilise the theories of Self-Determination (Deci & Ryan, 1985) and Self-Efficacy (Bandura, 1977) to help explain motivational behaviour in exercise and physical

activity settings. Motivation can be simply defined as the direction and intensity of one's effort (Sage, 1977). These particular theories were chosen because the determinants of these theories (such as relatedness, competence, autonomy, and vicarious experiences) offered similar themes or situations to those of a Māori world-view (such as *whanaungatanga* and *whānau*) therefore enabling an easier amalgamation of the two world-views for a Masters thesis.

### Self-Determination Theory (Deci & Ryan, 1985)

A theoretical model that offers explanations for motivation in physical activity is the Self-Determination Theory (SDT) (Deci & Ryan, 1985). This theory focuses on investigating the inherent growth tendencies and innate psychological needs of individuals, which are the basis for their motivation (Ryan & Deci, 2000). Consequently, this theory deals with the consequences of having different types of motivation which arise depending on the support provided for the psychological needs of relatedness, competence, and autonomy.

Integral to this theory is that there are two different types of motivation underlying behaviour, namely intrinsic and extrinsic motivation which can be represented as lying on a continuum (see Figure 1.) (Biddle & Nigg, 2000). Intrinsic motivation is characterised by engaging in an activity (or behaviour) for its own sake, out of interest, or because of the pleasure and enjoyment that is experienced. Whereas extrinsic motivation is characterised by undertaking an activity (or action, behaviour) as a means to an end, such as the prospect of attaining a reward or praise. More importantly, intrinsic and extrinsic motivation differ in their level of self-determination (see Figure 1.).

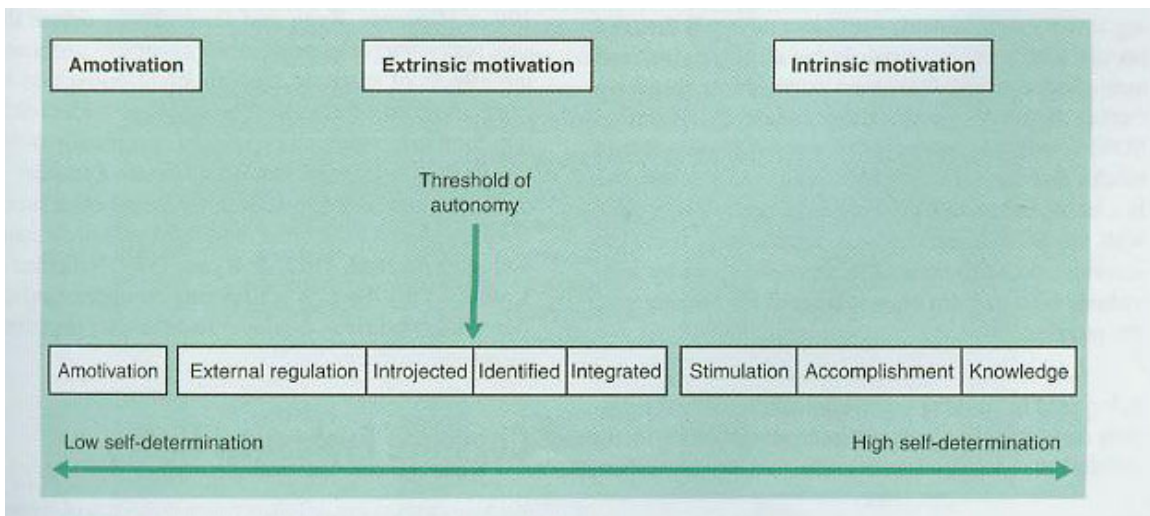
Three innate psychological needs have been identified to foster the positive

motivational state of intrinsic motivation (Deci & Ryan, 1985, 1991; Ryan & Deci, 2000). These 'needs' have been referred to as perceptions of relatedness, effectance (competence), and autonomy. The term relatedness is characterised by the need to feel connected with others and feel a sense of belonging within social settings (Deci & Ryan, 1985). The quality of relationships with others, feeling understood, having fun with others (Ryan & Deci, 2000), and interacting effectively within this social context (Ntoumanis, 2001) are all components of relatedness.

Competence is characterised by a sense of mastery and the perception of functioning effectively within a setting. Deci (1975) suggested that the need for competence leads people to participate and conquer challenging circumstances, and that competence acquisition occurs through the interaction with challenging stimuli. In his early writings on the motivation of competence, White (1959) cited a number of research reports that support this motivational process as an 'interest in the environment and the rewarding effects of environmental feedback' (p. 328). Such that competence is the belief that one can efficaciously interact with the environment. Accordingly, Deci and Ryan (1994) summarise (by referring to the term effectance) that 'people are inherently motivated...to function effectively in that milieu' (p. 7). White (1959) also suggested that certain behaviours such as visual exploration, attention and perception, language and thinking, exploring novel objects and places, manipulating the surroundings, and producing effective changes in the environment, are all activities that form the process whereby people learn to interact effectively with the environment. Further, these activities cannot be acquired simply through behaviour instigated by primary drives, such as Hull's (1943) four primary drives of sex, hunger, thirst, and the avoidance of pain. Competence is

rather contributed to by activities that, ‘though playful and exploratory in character, at the same time show direction, selectivity, and persistence in interacting with the environment’ (White, 1959, p. 329), therefore implying that these such activities require motivation in their own right. This motivation is to interact effectively with the environment.

Autonomy is characterised by actions or behaviours that are initiated within. More importantly these actions are initiated with a full sense of choice, such that it is self-initiated and self-regulated (Deci, Vallerand, Pelletier, & Ryan, 1991). In other words, autonomy is behaviour that emanates from a perceived internal locus of causality (deCharms, 1968). Finally, Deci & Ryan (1994) state that ‘people are inherently motivated to feel connected to others within a social milieu (relatedness), to function effectively within that milieu (effectance) and to feel a sense of personal initiative in doing so (autonomy)’ (p. 7).



*Figure 1.* Continuum of internal and external motivation (taken from Weinberg & Gould, 2003, p. 137).

The type of motivation, whether it be more or less self-determining (see Figure 1.) is

dependant on the 'perceived forces that move a person to act' (Ryan & Deci, 2000, p. 69). Consequently, Figure 1. illustrates that extrinsic motivation is less self-determining than intrinsic motivation, and the level of self-determination varies as well. Ryan, Connell, and Deci (1985) propose that not all activities are initiated autonomously, but one must also consider the external, introjected, and identified regulations of behaviour (including integrated) that are associated with extrinsic motivation in order to determine the inherent level of self-determination. External regulation refers to behaviour that is initiated and sustained by external mechanisms (Ryan & Deci, 2000), such as participating in an exercise program to receive an external reward. Introjected regulation is behaviour that is motivated by internal thoughts and pressures, but the individual still lacks self-determination because he or she has replaced the external source of control with an internal pressure (e.g., lifting weights to impress the opposite sex) (Vallerand, 1997). Identified regulation is behaviour where the individual treasures the activity and its associated benefits, such that it is accepted or owned as being personally important (Ryan & Deci, 2000). It is important to note that, when an individual moves from being regulated by introjected means to those of identified regulation, they have crossed the 'threshold of autonomy' (Biddle, 1999). Finally, integrated regulation is the most developmentally advanced form of extrinsic motivation (Deci, Vallerand, Pelletier, & Ryan, 1991), and it is characterised by choosing an activity that is personally important because of a valued outcome. However, it is still extrinsic because 'it is performed in order to achieve personal goals and not for its inherent appeal (such as intrinsic motivation)' (Ntoumanis, 2001, p. 226). Thus, as people internalise regulations and assimilate them to the self, they are demonstrating greater self-determination (Ryan &

Deci, 2000).

The SDT has been utilised in numerous investigations conducted in exercise and physical activity settings (e.g., Landry & Solmon, 2002; Kowal & Fortier, 2000; Wilson & Rodgers, 2004), as well as a variety of other health domains such as addictive behaviours, medication adherence, and smoking (Ryan, Plant, & O'Malley, 1995; Williams & Deci, 1998; Williams, Cox, Kouides, & Deci 1999). Landry & Solmon (2002) explored the literature on the status of women's health behaviour using the SDT as an organising framework, with the intention of designing intervention programs to increase physical activity participation. These authors found that women have a lack of knowledge and perceived sense of control over their health, as well as a lack of time and social support with regards to participating in physical activity behaviour. Social support is defined as any behaviour that assists another person in achieving their desired goals (Caplan, Robinson, French, Caldwell, & Shinn, 1976). The autonomy construct and emphasis on behaviour regulation that is integral to the SDT, was useful in helping understand that knowledge (of the health benefits of exercise) alone is unlikely to sustain behaviour change. But rather, the internalising of this knowledge and a sense of autonomy will sustain long-term behaviour. Through the lens of the SDT, the lack of social support (such as family responsibilities and caretaker roles) can be perceived as being controlling, decreasing autonomy and motivation (Landry & Solmon, 2002). The SDT can address this barrier as the relatedness 'need' is central in the process of internalising motivation. As such, Landry and Salmon (2002) suggest that,

Intervention strategies that address the nutrients by fostering a sense of autonomy and competence with regards to those roles, and incorporating elements

of social support to enhance relatedness should increase women's self-determination with regard to their physical activity and ultimately facilitate internalised, intrinsic motivation that will lead to long-term behaviour change. (p. 349)

Wilson and Rodgers (2004) examined the SDT's (Deci & Ryan, 1985) proposition that perceived autonomy support predicts exercise behaviour regulations, which in turn influence intentions towards exercise. Results from the survey of women (n = 232) involved in a group based exercise programme, found that perceived autonomy support from social agents such as friends underpinned the tendency to endorse more autonomous exercise regulations. This in turn, predicted greater intentions to exercise over the next four months. The authors conclude that the SDT's hypothesis regarding mechanisms contributing to motivational consequences, such as stronger intentions to exercise and continuing to exercise, develop from more autonomous supportive contexts such as perceived support from friends and other social agents (Wilson & Rodgers, 2004). This recognition of the importance of social agents (such as friends and family) in influencing autonomous regulation for exercise is important for this current study because the Māori equivalent concepts of *manākitanga* (caring), *whānau* (family) and *whanaungatanga* (interpersonal connections, extended kinship ties) are integral aspects associated with many facets of *Māoritanga*. Identifying their relevance to exercise intentions and maintenance can help facilitate physical activity participation among Māori.

A strength of the SDT is that it can explain both the initiation and maintenance stages of behaviour change, as opposed to say the Health Belief Model (Becker & Maiman,

1975) or the Transtheoretical Model (Prochaska, DiClemente, & Norcross, 1992) which can only provide a significant understanding of the initiation stage (Landry & Solmon, 2002). The SDT is important for this current study as it provides an explanation of the mechanisms which lead to long-term health behaviour change. As such, developing self-determination in a physical activity context and showing how SDT can be promoted using Māori concepts, is integral to Māori health and well-being.

#### Self-Efficacy Theory (Bandura, 1977; 1997)

A similar theoretical model that offers explanations for motivation in physical activity is Bandura's Self-Efficacy Theory (SET) (1977; 1997). This theory focuses on the mediational role played by perceptions of efficacy in affecting aspects of human functioning and behaviour. Self-efficacy is defined as one's perceived capability to execute a specific activity successfully (Bandura, 1977; 1997). 'Self-efficacy beliefs are hypothesized to influence the challenges people take, the effort they expend on the activity, and their perseverance in the face of difficulties' (Feltz & Payment, 2005, p. 25). This theory proposes that perceptions of personal self-efficacy can be formed through four principal sources of efficacy information; performance accomplishments, vicarious experiences, verbal persuasion, and physiological states (Bandura, 1977; 1997). Performance accomplishments are based on personal mastery experiences, in which previous successful experiences foster a stronger sense of efficacy to repeat the action or behaviour. Vicarious experiences are characterised by observing the performance and behaviour of others, noting the perceived similarities, and therefore establish a perception of one's own ability. Persuasive information includes verbal persuasion, evaluative feedback, expectations by others, self-talk, positive imagery, and other cognitive

strategies. Finally, various physiological states such as arousal/anxiety levels that are associated with fear and self-doubt, and physical stamina/fatigue, can also influence one's self-efficacy by affecting how an individual can cope with a demanding situation. Thus, personal self-efficacy beliefs are modifiable based on these various sources of efficacy information. Such that perceptions of efficacy can change as a result of experience, modelling, social persuasion, and affect or mood shifts.

McAuley (1992) sought to investigate the role played by personal efficacy beliefs in adopting and maintaining exercise behaviour over a 5-month period. The results of the path analysis found that general self-efficacy (ability to perform physical activity), and exercise self-efficacy (perceptions of capability to overcome barriers to exercise) were able to predict exercise attendance and intensity. In particular, exercise self-efficacy predicted attendance at 3 months, but failed to predict at 5 months. At 5 months, past behaviour (attendance) was a better predictor of future behaviour than self-efficacy. Thus, these findings seem to suggest that efficacy cognitions are more significant at the adoption (at 3 months) phase of exercise behaviour rather than the maintenance (at 5 months) phase. Consequently, McAuley (1992) suggests that 'efficacy cognitions play a more salient role at different stages of the exercise process' (p. 83). Moreover, this finding correlates with those found by Bezjak and Lee (1990) in a sample of college students, and those found by McAuley, Lox, and Duncan (1993) with a sample of older adults. In terms of the current study, the results of McAuley's (1992) research can be beneficial in identifying mechanisms that can enhance the adoption of exercise behaviour. Especially the effects of vicarious experiences, which can be identified frequently within Māori settings such as the *marae*. There has been little research in

regards to vicarious experiences and their direct influence on exercise adoption and maintenance. However, these studies provide some insight into the positive effects of self-efficacy on exercise behaviour.

### *Māori concepts, Motivation, and Health*

At this point, it is important to illustrate the proposed relationship and link between health, the Māori concepts, and motivation. In essence, the Māori concepts were conceptualised under the Whare Tapa Whā model, providing a link to health and well-being. The psychology of physical activity was then used to highlight the Māori concepts potential to promote physical activity and to also function as forms of motivation to be physically active. In other words, the psychology of physical activity literature was used to explain ‘how’ and ‘why’ the Māori concepts can function as forms of motivation.

### *Kaupapa Māori literature*

Kaupapa Māori will be incorporated into this study to provide culturally relevant methods of research. The use of Kaupapa Māori research is increasing (Bishop, 1996) as Māori seek to conduct research in a culturally accepted manner. Traditionally, Māori researchers operated in similar ways to Western researchers, albeit with indigenous methodologies and philosophies, yet Māori knowledge has not always been catered for within the paradigms which have operated to date in the research sectors of New Zealand (Cunningham, 2000). For example, the positivist paradigm with its strong emphasis on only logically ordered and verifiable knowledge, does not comply entirely with the

holistic views of Māori (Smith, 1986). Kaupapa Māori research is summed up by Smith (1992) as ‘the philosophy and practise of being and acting Māori’ (p. 1), and offers the opportunity to promote *Tino Rangatiratanga* (self-determination). Smith (1997) states that this paradigm is founded on three key assumptions:

- 1) The validity and legitimacy of Māori are taken for granted;
- 2) The survival and revival of Māori language and culture are imperative;
- 3) The struggle for autonomy over cultural well-being and over lives is vital to the Māori struggle.

Moreover, these three key assumptions locate *te reo* (Māori language) *me ngā tīkanga* (Māori customs) as essential elements in the reproduction of Kaupapa Māori (Nepe, 1991).

Further to these three assumptions, Smith (1997) identifies six intervention elements that are essential to Kaupapa Māori and evident in Kaupapa Māori sites (each will be discussed and defined in the methodology section):

- 1 *Tino Rangatiratanga* (the self-determination principle);
- 2 *Tāonga tuku iho* (the cultural aspirations principle);
- 3 *Ako Māori* (the culturally preferred pedagogy principle);
- 4 *Kia piki ake i ngā raruraru o te kāinga* (the socio-economic mediation principle);
- 5 *Whānau* (the extended family structure principle);
- 6 *Kaupapa* (the collective responsibility principle);

These six key elements have been successfully implemented into arenas such as health (Barnes, 2000), education (Irwin, 1994), and science and technology (Cunningham, 2000), ‘where they have proved quite successful in developing, applying and assessing

transformation’ (Fitzsimons & Smith, 2000, p. 35). It is clear that Kaupapa Māori research is epistemologically based within Māori cultural specificities, preferences and practices (Bishop, 1996). Thus, this type of research is based on the growing preference and need for Māori to research Māori, and to do so in a culturally accepted manner.

In contrast to the dominant prevailing world-view of research, Kaupapa Māori research serves to benefit the Māori community or *iwi* (tribe), rather than the researcher alone. It is not a ‘top-down’ experimentation located within the researcher’s interest, concerns and methodologies (Bishop, 1996). For this proposed study, the Kaupapa Māori paradigm will contribute to create a bottom-up driven approach that will ultimately seek to benefit all Māori.

Kaupapa Māori philosophy will be utilised as a framework to guide the research process and methods. Because there have been no specific studies with similar purposes to that proposed here, this Kaupapa Māori literature review is based within the broad disciplines of health, leisure and education. Furthermore, the following studies emphasise the different research processes that Kaupapa Māori can offer.

In 2000, Barnes provided an overview of various *kaupapa* (task) and processes of a Māori health research unit and its researchers within a university environment. The paper does not attempt to argue the rights of Māori researchers, but rather assumes their existence through their acknowledgement of Kaupapa Māori as a research paradigm (Barnes, 2000). One example is the research unit ‘Whāriki’, which is made up of Māori researchers who carry out research with Māori, employing a Māori world-view that utilises Kaupapa Māori as a research paradigm. Through the use of Kaupapa Māori, Whāriki adopts both quantitative and qualitative methods. When acquiring quantitative

data, the research unit was constantly asked by the media to compare the results of surveys to Non-Māori results. However, Whāriki argued that analyses of this kind needed to be carefully considered especially in light of the usefulness of such a comparison and the resulting negative images and stereotypes (Barnes, 2000). Another example of the Kaupapa Māori processes that Whāriki employ is evident in the evaluation of a three year drink drive programme. For this evaluation there was a strong focus on the implementation of the projects and a strong emphasis on the collaboration between the researchers and the Māori communities (Barnes, 2000). Instead of describing the programmes in a way that is accepted and legitimized by Non-Māori, Whāriki strive to frame evaluations from a Māori world-view (Barnes, 2000).

This article demonstrates that a Māori world-view can offer research processes and methodologies that are valid and robust in both quantitative and qualitative applications. More importantly, Whāriki provides health research examples that employ a Kaupapa Māori view in order to ultimately benefit Māori communities.

In 2002, Harvey reported on the development of a culturally appropriate research process that investigated the leisure participation, perspectives and experiences of Māori *rangatahi* (youth) from the Rotorua area. The purpose of this study was to investigate the use of a focus group methodology (as a function of Kaupapa Māori) to interpret the participants' feelings towards leisure. The research process involved a focus group methodology that contained five Māori *rangatahi* aged between 15 and 17 years. The focus group discussions were based on a *hui* (formal meeting) format, and contained *karakia* (incantation), *kaumātua* (elders) presence, *mihi* (greetings, acknowledgements), sharing of *kai* (food), and *poroporoāki* (farewell). In addition, these processes offered the

optimal opportunity to establish relationships with those who were present. The discussions were based on pre-determined questions, however, a participant-driven approach was developed to allow a shared control over the discussion. This recognition, along with the establishment of a research *whānau* (that contained the researcher, the participants, *kaumātua*, and supporting *whānau*) at the discussions, further fulfilled the *Kaupapa Māori* requirements. In conclusion, the author stated that by incorporating the many factors mentioned above, the findings of the study suggested that focus group methodology could be incorporated into a *Kaupapa Māori* research framework (Harvey, 2002), and that such an approach could be useful when researching similar groups.

In 1994, Irwin outlined some of the *Kaupapa Māori* research processes that she implemented in the first stage of her doctoral research. The thesis sought to study the socialisation processes of first year Māori teachers into the teaching profession. Throughout this article, Irwin outlines the various Māori research processes she used in order to ensure cultural safety. For example, she termed her supervisory committee as a ‘*whānau*’ in order to promote *aroha* (care), co-operation, and a collective responsibility. As well as including recognised PhD supervisors, the *whānau* also included *kaumātua* (Māori elders) who were fluent in *te reo* and *tikanga*. Another example was the use of *hui* as the first forum for contact between the researchers and the participants. The *hui* provided the opportunity for *kanohi-ki-te-kanohi* (face-to-face) greetings, as well as the appropriate forum for the removal of *tapu* between the supervisory *whānau* and the participants. To enable a successful first contact with the teachers, Irwin also sought help from a Māori educator whom the teachers already knew or would likely come in contact with throughout their first year. The first *kanohi-ki-te-kanohi* contact with the teachers

was made through this Māori educator, as he/she was a local and already had trusted networks within the teaching circle. This initial face-to-face approach was essential as the author was unknown to the teachers so the establishment of a rapport was important.

In conclusion, Irwin (1994) identified a number of Māori practices that enabled her to conduct research with Māori in an ethical and successful manner. By incorporating these practises, the author was able to satisfy the needs of Māori participants and do so in a culturally accepted manner, where *tikanga* Māori was a priority within the research agenda.

Salter (1999) utilised Kaupapa Māori in a study that explored a number of methodological and procedural issues surrounding research across gender and cultural boundaries. The study was located in a Kaupapa Māori research framework to emphasise collaborative research (i.e. shared collaborative ideas). The researcher (who was non-Māori) conducted 'interview-chats' with the participants to develop co-constructed stories of their experiences. To help frame the research problem, the author discussed the entire research process in relation to several issues regarding the collaboratively agreed research agenda. These were initiation, benefits, representation, legitimation, and accountability. In respect of initiation, the participants and researcher were long-time companions and all shared the same desires to explore the complexities of being mature Māori females within physical education. To ensure veracity and consistency, storying, re-storying and shared constructs were used to provide a means of imparting power and knowledge within the research group. The benefits of the collaborative efforts included:

- (a) The participants saw themselves as *kaitiaki* (guardian, custodian);
- (b) The researcher developed a greater personal understanding of the Māori culture,

therefore, a greater ability to enhance the success of Māori students (within the education setting), and thus, a positive impact on the Māori community; and,

(c) The stories and findings may stimulate more research, therefore supporting the cultural aspirations of Māori (Salter, 1999).

The representation of the information was shown through publications and conference presentations, and more importantly through *hui*. This formal proceeding was decided by the research *whānau* as being the most appropriate means of sharing the knowledge. Correct legitimization of the stories was achieved through mutually agreed co-constructions of the findings. This placed the accuracy and completeness of the stories in the control of the participants. Finally, accountability in terms of the research process and its findings was placed on the researcher. In addition, Salter (1999) also discussed the possibility of incorporating a *kaumātua* into the research *whānau* in order to oversee the cultural protocols. This suggestion arose as the author (a) felt a lack of perceived competence in Māori culture, (b) wanted to ensure cultural safety, and (c) wanted the research to be seen by Māori as legitimate. However, it was later decided by the research *whānau* that such measures would not be needed. This was another example of the power-sharing among the group members. In conclusion, it can be seen that the author implemented a *Kaupapa Māori* paradigm in order to overcome the cross-cultural boundaries, and also to interpret the participants' stories in a culturally accepted manner.

Keefe, Ormsby, Robson, Reid, Cram, and Purdie (1999) discussed the Māori processes and methodologies that surrounded an epidemiological cohort study of the health effects of redundancy. In essence, the authors' utilised similar processes and methodologies to those employed by Salter (1999), Harvey (2002), and Irwin (1994).

These were (a) the concept of a *whānau* approach to the community and the research group, (b) consultation and collaboration with the research community, and (c) formal *hui* with the community and *kaumātua*. The authors also established a reciprocal relationship with the research community. The researchers had to reciprocate in some way for the time, effort, information and support given by the participants and the community (Keefe et al., 1999). Therefore local people were trained and employed when possible, and assisted in (a) the research projects, (b) contributing to local research, (c) providing resources and information, and (d) advocacy on behalf of the community (Keefe et al., 1999). This study again outlined the various research processes and methodologies that can and need to be implemented when using Kaupapa Māori research.

### *Conclusion*

To conclude, the purpose of this study was to highlight the applicability of certain Māori concepts to the psychology of physical, in particular the Self-Determination Theory (Deci & Ryan, 1985) and the Self-Efficacy Theory (Bandura, 1977; 1997). Doing so may help to develop culturally relevant motivational literature to increase physical activity among Māori. Durie's (1985) Whare Tapa Whā model of Māori health and well-being was employed to help frame the Māori concepts within a health and well-being context. Underlying the entire research process was a Kaupapa Māori methodology, which served to provide culturally relevant processes and promote Tino Rangatiratanga.

### CHAPTER III: NGĀ WHAKAHAERETANGA

#### *My world-view*

This entire research study is informed by and framed from a Māori world-view. In a similar sense to how the *tāhūhū* (beam) provides the backbone of the *marae* and oversees the well-being of the *hapu* (sub-tribe), a Māori world-view provides the foundation and ontological view for this research study. The holistic thinking and understanding that is implicit in a Māori world-view subscribes to a relativist ontological view, where the diversity of interpretations is emphasised (Willig, 2001).

The researcher has been surrounded by *Māoritanga* since birth, and is influenced in all facets of life by a Māori world-view. Accordingly, the researcher draws upon the research paradigm of Kaupapa Māori. Nepe (1991) states that Kaupapa Māori is derived from distinct cultural epistemological and metaphysical foundations, such that it is a conceptualisation of Māori knowledge. It draws on a variety of Māori aspects such as *Mātauranga* Māori (Māori knowledge), Māori pedagogy, *te reo*, and *tīkanga* Māori to help frame and develop the research process. As a result, *Tino Rangatiratanga* is promoted.

#### *Kaupapa Māori*

This study incorporated a Kaupapa Māori philosophy into the entire research process. As such, it is important at this point to outline how Kaupapa Māori influenced the

research process. This section provides an explanation for each of the intervention strategies mentioned in Chapter II, and its application within this study.

The cultural aspirations principle assumes that a “Kaupapa Māori framework asserts a position that to be Māori is both valid and legitimate, and in such a framework to be Māori is taken for granted” (Pihama, Cram, & Walker, 2002, p. 36). Therefore *tikanga* Māori (Māori customs/concepts/practices), *te reo Māori* (Māori language) and *Mātauranga Māori* (Māori knowledge) are legitimate and valid, and consequently, this principle acknowledges the strong emotional and spiritual factor in Kaupapa Māori. Further to this point, *Kohanga Reo* (Māori language-medium pre-school), *Kura Kaupapa Māori* (Māori language-medium primary school), *Wharekura* (Māori language-medium secondary school) and *Whare Wānanga* (Māori tertiary education providers) are all forums where Māori customs, language and education form the prime basis for the curriculum. The experiences of the researcher in Māori education (as a founding student of the *Kohanga Reo* movement, a *Kura Kaupapa Māori* student, and Māori boarding school student) and the support that was provided by *kaumātua* (elders), provided the culturally competent background knowledge required for research in the chosen framework and the methodology that was employed. For the current study, a number of cultural customs that have been handed down through the generations were utilised in different and varying contexts. These included Māori terms and language (where possible), *kanohi-ki-te-kanohi* (face to face) ‘chats’ to attain more in-depth and specialised information, the giving of *kohā* (gift donation), and the strong involvement of *whānau*.

The *Ako Māori* principle assumes that Māori pedagogies, which entail Māori

language, customs, *whenua* (land), and *whakapapa* (genealogy), are imperative to ensure cultural communication, achievement, and socialization (Pihama et al., 2002). Therefore, teaching and learning practices that are unique to *tīkanga* Māori are promoted through this study. In order to implement the *ako Māori* principle, the use of *kanohi-ki-te-kanohi* ‘chats’ were conducted on the participants’ *tūrangawaewae* (homeground) where possible, and the use of *te reo* (where possible) was included in the study. The researchers schooling was strongly based on Māori pedagogies of learning, therefore the Māori culturally preferred pedagogy framed the researcher’s thoughts. Moreover, by including these processes into the study, cultural transmission and acquisition was assured through the development of a Māori culturally preferred pedagogy.

The socio-economic mediation principle assumes that despite the difficulties that Māori face in terms of our socio-economic disadvantages, Kaupapa Māori mediation practices and values can successfully improve *whānau* well-being (Pihama et al., 2002). Therefore, the collective responsibility and support of the Māori community (e.g., the various *whānau*) is emphasised. This study drew upon the knowledge of both Māori and non-Māori academics to help the researcher interpret and conceptualise the content of the study. Thus, a collective commitment and input by academics as well as elders in the researcher’s *whānau*/community ensured that no significant disadvantages were present.

The *whānau* principle assumes that the practice of *whanaungatanga* (kinship) is an integral part of Māori identity and culture. ‘The cultural values, customs, and practices that organise around the *whānau* and collective responsibility are a necessary part of Māori survival and educational achievement’ (Pihama et al., 2002, p. 38). Conducting research from a Kaupapa Māori approach within a westernised institution was a

challenging task. Therefore, the researcher sought help, guidance and support from immediate *whānau*. Having experience in Māori research regarding education, geography, science, technology, and Kaupapa Māori, the researcher's *whānau* members provided significant help towards the study. Further to this point, as a result of the kinship structure within the Māori world-view, the researcher was able to seek the advice and help from a number of top Māori academics (from outside of the residing university).

The collective philosophy principle assumes that a Kaupapa Māori world-view is a collective vision which involves collective commitment. 'This vision connects Māori aspirations to political, social, economic, and cultural well-being' (Pihama et al., 2002, p. 39). The vision and development of this study was a collective input from the researcher, *whānau*, colleagues, and academics (both Māori and Non-Māori). The study was constructed from a collective vision that sought to advance Māori understandings of motivation and in turn, provide culturally accepted means of motivating Māori to become more physically active.

The *Tino Rangatiratanga* principle can be regarded as the main underlying theme of Kaupapa Māori. Accordingly, this can mean 'Māori control over Māori things' or expressed more simply 'Māori for Māori' (Pihama et al., 2002). Relating this principle to the current study, Māori will gain better control over decisions regarding whether or not to become physically active by acknowledging Māori concepts that can positively influence motivation. Thus, it offers an example of 'Māori control over Māori things', and hopefully an improvement in Māori well-being. In essence, it is hoped that the ultimate achievement of this study will provide an advancement in *Tino Rangatiratanga*. The mere fact that a Māori researcher is conducting research on a Māori issue goes some

way in promoting *Tino Rangatiratanga*. With the continuing negative connotations that are associated with Māori (such as high unemployment [Ministry of Education, 1997], health risks [Durie, 1998b], and crime rates [Durie, 1998b]), there is a strong need for the advancement of *Tino Rangatiratanga*. It is hopeful that this current study will add to the already substantial body of Māori generated health research.

In conclusion, conducting research that (a) is framed within a Māori world-view, (b) has specific relevance and concern for Māori, and (c) utilises traditional Māori customs/concepts/practices, are all implicit and explicit examples of research that correlate with the Kaupapa Māori principles. By incorporating the Kaupapa Māori research process, the researcher not only conducted research that is culturally relevant and appropriate, but research that will also meet the requirements of the University.

### *Procedure*

A qualitative research approach was employed to fulfil the requirements of this study. Qualitative methods allow the researcher to collect and collate detailed information whilst still being able to acknowledge its context and meaning (Denzin & Lincoln, 2000). Therefore, these methods are similar to many of the concepts valued in Kaupapa Māori research. Ritchie (2003, p. 27) identifies four classifications and functions that qualitative research can offer: 1) contextual: describing the form or nature of what exists, 2) explanatory: examining the reasons for, or associations between, what exists, 3) evaluative: appraising the effectiveness of what exists, and 4) generative: aiding the development of theories, strategies or actions. Contextually, qualitative research enabled the researcher to describe, interpret and contextualise the Māori concepts in a manner that

captured their inherent nature. In terms of the explanatory function, the research methods enabled the researcher to describe and contextualise the associations between the Māori concepts, the Whare Tapa Whā model of health, and certain motivational factors of the psychology of physical activity. The evaluative function of qualitative research allowed the researcher to evaluate the effectiveness of the categorisation of the Māori concepts/practices into the four cornerstones of the Whare Tapa Whā model, as well as their ability to promote physical activity. In terms of the generative function, this research method aided the researcher in developing the proposed theory that the Māori concepts can promote physical activity, and therefore motivate Māori to become more physically active. Because qualitative research seeks to capture the essence of what exists, the potential for original or creative ideas and suggestions is very high (Ritchie, 2003).

Kellehear (1993) explains that researchers who wish to investigate parameters which reflect the culture and its people tend to be qualitative researchers. During the foundation investigations of a phenomenon such as those objectives that were proposed by this study, qualitative research is sometimes used as a prequel to statistical inquiry because a clearer understanding and definition is required before measuring can occur (Ritchie, 2003). Patton (2002) further supports this stance by stating that qualitative research has been utilised in areas of research in where little is known about the topic of investigation, where little research has been completed, and where few definitive hypothesis have been made. At present, there has been no research conducted which seeks to highlight any correlation between a Māori world-view and that of the psychology of physical activity discipline. Finally, because the subject area of this study was deeply rooted within the

researcher's knowledge and understandings (i.e. a Māori world-view and Kaupapa Māori), qualitative research provided various research methods (such as auto-ethnography, face to face interviews, and discourse analysis) to acknowledge these views and beliefs (Ritchie, 2003).

### *Data Collection*

Data collection for this study utilised an ethnographic approach. Ethnography has been defined by Fetterman (1989) as 'the art and science of describing a group or culture' (p. 11). This can be achieved by interviewing key people, reviewing records and data, observing behaviour, interpreting literature, and taking field notes. For the purposes of this study, the researcher described various Māori concepts through the interpretation and analysis of literature, information gained from key informants, and personal knowledge and experience. This method also lends itself towards auto-ethnography, a term considered to originate from David Hayano (Ellis & Bochner, 2000). Hayano (1979) refers to the term as culture-level studies conducted by 'native' researchers who have an acquired intimate belonging and familiarity with the group. Moreover, Reed-Danahay (1997) goes onto state that auto-ethnography is situated between three genres of writing:

- (1) 'native anthropology', in which people who were formerly the subjects of ethnography become the authors of studies of their own group;
- (2) 'ethnic autobiography', personal narratives written by members of ethnic minority groups;
- and (3) 'autobiographical ethnography', in which anthropologists interject personal experience into ethnographic writing. (p. 2)

Deliberately, the research approach built on the researcher's belonging, knowledge, and

access to *te ao Māori* (Māori culture) and to various Māori groups and key informants. Early anthropological studies in New Zealand (e.g., Best, 1925; Stafford, 1967; and Metge, 1964) were undertaken by researchers who were external to the population under consideration. As a result, the interpretation of Māori experience was often couched in terms based on western explanatory frameworks. In this study, the researcher had ‘insider’ advantage and used Māori-centred frameworks and understandings to explore Māori experiences. Thus, an added element of ‘autobiographical ethnography’ was conducted in where the researcher interjected personal experiences (such as experiences at *kura* [school] and on *marae*) into the study to add further substance and relevance.

Marsden (1992) supports this view of only Māori being able to adequately reflect Māori thought by stating that ‘the route to *Māoritanga* through abstract interpretation is a dead end. The way can only lie through a passionate, inward subjective approach’ (p. 117). As such, writers must unmask themselves for only they can interpret their culture to another in terms of what the traditions, customs, practices, and discourses mean to them. Moreover, ‘only an approach which sets out to explore and describe the main features of the consciousness in the experience of the Māori offers any hope of adequate coverage. For the reality we experience subjectively is incapable of rational synthesis’ (Marsden, 2003, p.22). Thus, the researcher adopted an emic perspective which served to provide an insider’s or native’s perspective of reality (Fetterman, 1989).

Therefore, the overriding method for the data collection of this study was an ethnographic approach containing an extended literature review and ‘chats’ with key informants. The literature review was based on the Māori concepts and the psychology of physical activity theories. With the influence of a Kaupapa Māori perspective, a Māori

world-view was maintained through the data collection. Accordingly, the data collection involved the following sources:

- 1) A comprehensive analysis of research articles, newspaper articles, historical documents, and other various discourses in terms of the Māori concepts that were studied. Specialist libraries were utilised such as Hocken Library, the Alexander Turnbull Library, as well as the special collections section of the University of Otago Central library. The Index New Zealand database was also sourced for further information. Essentially each concept was investigated to determine its ability to promote physical activity, and therefore help to motivate Māori to partake in regular physical activity.
- 2) Semi-formal interviews with several key Māori informants in regards to the Māori concepts. The questions focused on the informants understanding and knowledge of their respective Māori concept, with the purpose of attaining a deeper and more coherent understanding of the Māori concepts. For example, questions surrounding the origins, developments, functions and contemporary aspects of the concepts were asked, as well as their relevance or relation to physical activity and health.
- 3) The following databases provided the literature relevant to understanding the psychology of physical activity theories and constructs: PsycARTICLES, PsycINFO, MEDLINE (all via OVID), SportsDiscus (via Silverplatter), Academic Search Premier (via Ebsco), Proquest 5000, and ScienceDirect. The keywords that were utilised for the searches within these databases were; exercise psychology, self-determination theory, autonomy, relatedness, competence,

belonging, motivation, intrinsic motivation, cohesion, teamwork, self-efficacy, self-esteem, spirituality, flow, and transcendence. In addition, those keywords were also combined with the following keywords to limit and/or narrow the searches; health, physical education, physical activity, leisure and exercise.

In this sense, the data collection did not conform to the traditional research methods of ethnography (e.g., field notes and field observations), but rather relied on existing relevant literature, and informant knowledge and understanding. As such, the ethnography approach existed through the auto-ethnography method which is detailed above.

### *Data Analysis*

Following the data collection, discourse analysis was utilised to help interpret the literature and various sources (i.e. the psychology literature, Māori concept literature, and key informants knowledge). Discourse analysis can be basically defined as the study of language (Johnstone, 2002). Discourse studies emerged out of early ethnography (Van Dijk, 1997), and discourse analysis has been useful in answering questions posed by those fields traditionally focused on human life and communication such as anthropology, psychology, sociology, and cultural studies (Johnstone, 2002). This type of analysis involves analysing various ‘text’ in order to shed light on how readers/or listeners interpret the text, based on their discourse. The discourse in this sense is referred to the knowledge that people draw on to make meaning of language and text. ‘Discourses is both the source of this knowledge (people’s generalisations about language are made on the basis of the discourse they participate in) and the result of it (people apply what

they already know in creating and interpreting new discourse)' (Johnstone, 2002, p. 3).

For the purpose of this study, the researcher drew on the discourse of a Māori world-view to help analyse the psychology of physical activity literature as well as the key informant, Māori concept information. Conclusions were then drawn to hypothesise and describe whether the Māori concepts can - (a) be framed within the Whare Tapa Whā model, (b) promote physical activity, and therefore (c) provide motivation for participation in physical activity. Arising from the conclusions, motivational literature for understanding and promoting Māori physical activity was constructed.

### *The Researcher*

When conducting research using a qualitative approach, the researcher's role is vital. The researcher in this study is of Te Arawa and Te Rarawa descent, and a graduate of the University of Otago Bachelor of Physical Education Honours programme. The researcher is in a very special position as he is a member of the first generation of *Kohanga Reo* graduates to attend and graduate from University. Moreover, the researcher was also fortunate to attend *Kura Kaupapa* and a Māori secondary boarding school. Therefore, because of this unique background the researcher was able to offer new and different perspectives and insight into the parameters that were studied. Drawing on life experiences within varying Māori communities and settings, the researcher developed new knowledge by interpreting the parameters that were studied and applied them into a physical activity setting. Burns (1994) supports this process by stating that it is important in qualitative research to not attempt to remove the researcher from the data but accept and instil his or her influence into the results.

The underlying reason for undertaking this study stemmed from a keen interest in physical activity, sport, exercise and leisure, as well as Māori traditions. In addition, the researcher feels that there needs to be more recognition of Māori customs and concepts (including the Whare Tapa Whā model) in sport, leisure, exercise and the psychology of physical activity, and consequently, the promotion of improved health and well being for Māori.

### *Key Informants*

The researcher drew upon the knowledge of several Māori elders to help provide further substance and sufficient information with regards to the Māori concepts. The researcher conducted interview ‘chats’ with each key informant (one per concept) to probe for deeper understandings of the Māori concepts. Similar to how Bishop (1996) and Salter (1999) used ‘interviews as chats’ to create informal dialogue, the researcher also proceeded in this matter to enable the informants to relax and proceed without caution. In doing so, it was hoped that the atmosphere created was similar to that achieved on *marae* during formal *wānanga* (learning forums). This also enabled the informant to control the environment and negated the possibility of the informants feeling vulnerable towards the institutional rigor that research interviews can sometimes display. The key informants are involved in various sectors of society such as education, welfare, and social development, but most importantly, they all have the same characteristic of being respected elders within their tribe. Their unique upbringing within Māoridom, their involvement in various sectors of *Māoritanga*, and their strong sense of cultural identity provided unique and in-depth knowledge. Prior to each interview, the key informants

were advised of the transcribing process, the participant re-check, the termination of the audiocassettes, and the dissemination of knowledge.

Key informant A was a *kaumātua* of Ngai Tahu descent. A knowledgeable *kaumātua* of Ngai Tahu tradition and custom, this key informant enlightened the researcher on the many underpinnings of *marae*. Growing up in *Māoritanga* since birth, this elder drew on a vast amount of knowledge pertaining to a Māori world-view. Prior conversation outlined the purpose of the study, as well as the *marae* theme which was to form the basis of the discussion. Drawing on his lifetime experience, the *kaumātua* provided in-depth content pertaining to the *tikanga* and various *āhuatanga* (aspects) of the *marae*. Recording ended after approximately 1 hour, where a *kohā* (gift) was gifted for the *kaumātua*'s time and knowledge.

Key informant B of Ngāti Kahungunu was a close friend of our *whānau*. He is the current principal of a Kura Kaupapa Māori in the Ngāti Kahungunu area. He is a first language Māori speaker, and a leading exponent of *mau rākau*. Again, prior to the interview the researcher outlined the purpose of the interview, as well as the concepts and/or ideas that formed the basis of the dialogue. The interview was conducted on his *tūrangawaewae*, and the dialogue centred on his knowledge of *mau rākau*, how it has influenced his life, and how it draws on spiritual, physical, cognitive, and *kōtahitanga* (unity) principles to transmit traditional knowledge. Recording ended after approximately one and a half hours, where a *kohā* was given in exchange for the time and knowledge of the key informant.

Key informant C was a first-language Māori speaker, who grew up on her *tūrangawaewae* until she moved to the city in adulthood. Her ancestral links stem from

Ngāti Haua of Whangape, a small harbour situated on the West Coast of the far North. Prior to our *hui* (meeting) which was conducted on her *tūrangawaewae*, I outlined that the purpose of the interview, as well as described the concepts and ideas which formed the basis of the interview. Following the greetings, the dialogue centred around her views on *tūrangawaewae*, and how it influenced the many facets and aspects of her life. She drew on her experiences growing up at the small settlement, the traditions that were handed down to her by elders, and the explicit link that remained later in her life when she had moved away. The dialogue continued for approximately one and a half hours, and then concluded with a *hākari* (feast) in the *wharekai* (dining room).

Key informant D of Tūhoe, was another family friend and lecturer in a University Māori studies Department. He is a leading academic in *te reo* Māori, *whaikōrero* (oratory), and *tīkanga* Māori. Prior discussion advised the participant of the purpose of the study, as well as the concept (*te reo*) that formed the basis of the dialogue. Following greetings, the dialogue centred on *te reo* and how it can relate, develop, and be implemented within a physical activity setting. Reference was made to the specialised language functions which are evident within *te reo* such as *whakatauki* (proverbs) and *kīwaha* (colloquial sayings). Recording ended after approximately one and a half hours, where again a *kohā* was gifted for the time and knowledge of the key informant.

Each key informant was chosen due to their deep understanding of the Māori concepts that were investigated. Drawing on lifelong experience in both traditional (rural) and contemporary (urban) type Māori communities, each key informant provided valuable input. Such knowledge and understanding provided the necessary in-depth content to help achieve the purpose of the study.

### *Trustworthiness*

When conducting research of any type, there is always the possibility of flaws and biases. To help control and address these problems, trustworthiness methods are adopted. In qualitative research that draws upon holistic approaches, the terms ‘credibility’, ‘transferability’, ‘dependability’, and ‘confirmability’ (Lincoln & Guba, 1985) are used somewhat as ‘quality control criteria’ (Priest, 1999, p. 312) to represent measures of trustworthiness.

The credibility concept refers to whether the outcomes of the research can be interpreted, and offer a consistent description of reality (Priest, 1999). To address this issue the researcher attempted to describe and interpret the various Māori concepts by utilising historical and recent literature, the knowledge of key Māori informants, as well as personal knowledge and experience. Additionally, the recorded transcripts of the key informant interviews were sent back to the informants for ‘participant re-checks’ to ensure that the information transcribed was correct. The Whare Tapa Whā model also helped with the interpretation of the Māori concepts as it provided a framework which could accommodate the concepts under the cornerstones of health. Framing the Māori concepts under these cornerstones also provided credibility to the research process as this model has been utilised by other researchers as a research framework (e.g., Barnes, 2000; Harvey, 2002; Irwin, 1994; Salter, 1999). By utilising these avenues, it was hoped that the outcomes represented the true meanings of the Māori concepts.

The transferability concept refers to whether the research outcomes can be applied or transferred to other similar situations (Priest, 1999). To help address this issue, the content and context of the findings will be explained clearly to allow readers to apply the

outcomes to other/or their own situations such as *whānau* or *marae* sport days and other physical activity based programmes. The utilisation of the Whare Tapa Whā model (Durie, 1985) as a Māori representation of health, as well as its ability to conceptualise the Māori concepts within a health framework, presents Māori developed literature akin to a Māori world-view. As the Māori concepts that were investigated are reasonably universal among Māoridom, there is reason to suggest that the outcomes can be applied to other culturally relevant situations and contexts. Finally, a 2-page shortened version of the findings and outcomes will be disseminated among Māori health providers and the like, to provide concise and coherent guidelines to help motivate Māori to become more physically active.

The dependability concept refers to the extent to which the researcher can perceive and interpret the data or phenomenon (Priest, 1999). To address this issue, the researcher has been involved in *Māoritanga* since birth, therefore has reasonable knowledge in terms of the Māori content (see The Researcher section). Furthermore, the researcher's interest, participation, and research in sport and exercise also provided reasonable background knowledge for the psychology of physical activity content. The additional academic help provided by the supervisory committee and *whānau* members also contributed to a better understanding and interpretation of the literature/discourses.

The confirmability concept refers to the extent to which the inquiry and research is unbiased (Priest, 1999). For the proposed research process, there was some obvious personal perception and interpretation as the researchers' knowledge and experience is an integral component of the analysis. However, the credibility and dependability issues that have been addressed, helped alleviate such bias in the research process.

In conclusion, it was vital that these issues were addressed and alleviated to the best of the researcher's ability. Identifying these matters and developing countermeasures alongside, and in accordance with Kaupapa Māori, provided the research process with a greater degree of trustworthiness.

### *The Scope*

In determining the scope of the study, the population that it is intended to benefit needs to be considered. There is considerable evidence (e.g., the urban drift following World War II) to suggest that access to *te ao Māori* is not equally accessible and many *whānau* have been alienated from it. However, because the concepts that were investigated are some of the more universal or frequent concepts within Māoridom, many Māori will be able to relate to the themes. Essentially, the findings are applicable to all Māori as the purpose of this study was to construct motivational literature that will be useful for Māori who wish to participate in everyday physical activities. Moreover, Te Whare Tapa Whā has been widely accepted by Māori (such as its inclusion in the New Zealand Health and Physical Education Curriculum), including those with little knowledge of custom. As such, Te Whare Tapa Whā does not require in-depth experience within *te ao Māori* nor high levels of competence across the four domains. Potential applicability to all Māori is therefore posited as a realistic goal. Thus, the findings are strongly applicable to those Māori who are new to physical activity, and also to those who participate for either the fun or the beneficial health gains that physical activity promotes (i.e. social and weekend leisure/recreation participants). It is important at this point to note that the study had a pro-Māori designation rather than an anti-Pākeha

focus, but may ultimately suit all New Zealanders to some degree regardless of ethnicity.

## CHAPTER IV: TE WHARE TAPA WHĀ ME NGĀ ARIĀ

This chapter serves three functions. Firstly, each of the cornerstones of the Whare Tapa Whā model are introduced in order to outline what constitutes a Māori view of health and well-being. Secondly, each of the four Māori concepts (*marae*, *mau rākau*, *tūrangawaewae*, *te reo*) will also be discussed to provide an understanding of their origins, functions, and associated aspects. Finally, each concept and its associated cornerstone is discussed in relation to each other, in order to highlight the link between the Māori concept and health. As such, the *marae* concept with the *taha whānau* cornerstone, the *mau rākau* concept with *taha tīnana*, the *tūrangawaewae* concept with *taha wairua*, and *te reo* with *taha hinengaro*. This final relationship also draws attention to the ability of the Whare Tapa Whā to accommodate various aspects of *Māoritanga*.

### *Taha Whānau*

*Taha whānau* is a cornerstone of Māori health and well-being that is evident in traditional and contemporary times. *Taha whānau* is concerned with the importance of relationships with the extended family to maintain good health and well-being. The foundations for *taha whānau* can be seen through the collective input that was required by the members and *whānau* of traditional fortified *Pā* (fortified villages). This collective input was required in order to provide and protect food and shelter, and to also provide cultural and emotional support. In contemporary times, there are various examples of collectivity within *Māoritanga*, such as, the practice of *whanaungatanga* (interpersonal connections). One specific example exists between the members of the Ngāti Porou East

Coast Rugby team (NPEC). These individuals use *marae*, *kapahaka* (traditional performing arts), and *karakia* (prayers/incantations) to create a collective and supportive team environment (Waiti, 2003). To Māori, family signifies an extended kinship system rather than an emphasis on the nucleus of a family and this view can have many implications on health such as child care and care for the elderly (Durie, 1985).

Fundamental to *taha whānau* is the notion of the *whānau* being the prime support system. This support is not only provided in physical terms, but also culturally and emotionally (Durie, 1998b). When a series of unfortunate events occur within a *whānau*, certain members (especially children) maybe removed from the family and most often will be raised by elders or *kaumātua* to protect them from further mishap or abuse/neglect, and to also provide support and help for the parents concerned. Abuse or neglect usually justifies the intervention of *kaumātua* (tribal elders) or significant relatives (Durie, 1998b). In this respect, parental rights are disregarded in the interests of the family, and more importantly to protect future generations (Durie, 1998b). Therefore, Māori still believe that an individual's ill-health is a reflection of the family (Durie, 1998b).

The role and purpose of *kaumātua* is a very important aspect of *taha whānau* (Durie, 1985), and *kaumātua* are very much revered in Māoridom. The importance of caring and respecting *kaumātua* is perpetuated through the significant contribution they make. In both traditional and contemporary times, the role and position of *kaumātua* has been metaphorically referred to as the '*poutokomanawa*' (centre-post of the meeting house that upholds the roof) of the *whānau*. Much like how the *poutokomanawa* of the *marae/wharenui* upholds and strengthens the surrounding walls – so too do *kaumātua* in

the extended family kinship structure. Through their guidance, knowledge and wisdom, *kaumātua* uphold the values of the *whānau*, *hapu* and *iwi*. Walker (2004) sums this role up by stating that ‘the old people were not only revered for their wisdom but also valued for their own contribution in minding the young and performing tasks useful to the livelihood of the group’ (p. 63). It may well be for this reason that Māori elders are rarely placed in retirement homes when they reach old age. Rather, they can be seen on *marae* and *papakāinga* (customary reserves) nurturing and caring for future generations.

Another important consideration of *taha whānau* relates to identity and sense of purpose. In this respect, Māori do not regard self-sufficiency and independence as an important fundamental aspect of good health and well-being (Durie, 1994). To rely on one’s self, without seeking help or guidance from family is regarded by Māori as unhealthy. If an individual was to avoid or shun their *whānau*, well-being is compromised, whereas a close and reciprocal relationship with *whānau* can be favourable and advantageous to good health (Durie, 1994). Māori maintain that a dependence on family can strengthen and enhance an individual’s maturity (through teaching and learning, i.e. *tuakana-tēina* relationships: reciprocal relationships), development, and more importantly kinship ties. ‘Interdependence rather than independence is the healthier goal’ (Durie, 1998b, p. 72).

Further to this point on identity, where Non-Māori base identity largely on individual characteristics, achievements and status (such as career pursuit), Māori believe that self-identity is largely derived from family characteristics (Durie, 1985). Therefore, who your *whānau* is, or where you are from (your *whakapapa*) is a better indication of identity, as

opposed to your vocation alone. ‘On one hand identity is gleaned from vocation; on the other hand from tribal affiliation’ (Durie, 1985, p. 485).

### *Marae*

Various Māori concepts were explored to promote *taha whānau*. These included; *kapahaka* (traditional performing arts) and *tuakana-tēina* relationships (reciprocal relationship between senior and junior counterparts). *Marae* was chosen because it provided a suitable forum or setting to promote *taha whānau*. Furthermore, the role of *marae* incorporates a number of other concepts including *kapahaka* and *tuakana-tēina* relationships which help emphasise the *whānau* theme of this cornerstone. The focus of this section is to outline and explain some of these themes and concepts in order to fully appreciate the thinking, behaviour, and occurrences that are evident on *marae*.

In many parts of New Zealand society ‘*marae*’ have become synonymous with Aotearoa and the Māori culture. The word ‘*marae*’, and its theme have evolved over time (Mead, 2003) and it is important to acknowledge this change. Initially, *marae* was referred to as the clear space in front of the *wharenuī* (meeting house), where certain ceremonial procedures occurred (Mead, 2003). The area in which *marae* were located was often described as the *pā* or fortified place. In contemporary times however, the entire area or complex is referred to as the *marae* and there are numerous facets that contribute to the setting such as the presence of *urupā* (cemetery), *kaumātua* housing, churches, and *Kohanga Reo* (Māori language pre-school). Mead (2003) proposes that the change in perception of *marae* can be linked to a book published in the late 60’s, entitled ‘Washday at the Pa’ by Ans Westra, after which the word ‘*pā*’ became very unpopular.

*Marae* then has evolved over time to now describe the associated land, buildings, and facilities of ancient *pā* without necessarily having the negative connotations linked to the word *pā*.

*Marae* and all its associated aspects have become a very important cultural bastion for Māori. It is a stable foundation from classical Māori society that has survived the impact of western colonisation (Walker, 2004; Richardson, 1988). It is central to the concept of *Māoritanga* and to Māori cultural identity, and offers a place where Māori values and philosophies can be reaffirmed (Key Informant A, 2006; Richardson, 1988). It is this cultural stronghold and affirmation role that has contributed to the strong respect and value of Māori for *marae* (Key Informant A, 2006).

Integral to the notion of *marae* is *tūrangawaewae* (customary link with the land). Walker (2004) sees *tūrangawaewae* as ‘the standing and identity of a people’ (p. 70), which can be defined and determined by association with *iwi* (tribe) and *hapu* (sub-tribe). *Tūrangawaewae* provides a customary link to the *marae* through *whakapapa* (genealogy) and enables one to relate spiritually to the land, to ancestors, and to the environment and surroundings.

Vital to the correct and proper functioning of *marae* are the different distinguished roles that are evident in *marae* settings. *Marae* throughout the country have different roles for different people depending on their gender, generation, and level of expertise. For example, the *wero* (formal challenge) is most frequently conducted by males, and the *karanga* (welcoming call) by females. The *whaikōrero* (formal oratory) and church services are most frequently conducted by *kaumātua* (elders). Each of these distinguished roles need to be fulfilled and integrated together in order for the *marae* to function

properly (key Informant A, 2006). Thus, collective input and collective vision is required. Achieving this adequate level of functioning serves two purposes; (1) *manāki* and respect for each other, therefore upholding the *mana* of the *whānau*, *hapu*, and *iwi*, and more importantly (2) *manāki* for the *manuhiri* (visitors). Although *marae* serve the purpose as a forum for ceremonies and other culturally significant proceedings, inherent and fundamental to this purpose is the role of being a caring host. This emphasis on looking after visitors' traces back to traditional times (key Informant A, 2006). Before such care can be given however, a *wero* (formal challenge) often occurs at the very beginning of the *pōwhiri* (welcoming ceremony) in order to determine whether or not the visitors come in peace or with evil intentions (Barlow, 2002). The *wero* involves a 'highly ritualised display' (Walker, 2004, p. 73) of weaponry with the *taiaha* (long staff weapon). If the visitors were hostile, they would challenge the warrior/s, if they came in peace, then the warrior would place a dart on the ground for the visitors to uplift. Only after the latter situation occurs do the hosts practice the concept of *manākitanga* (care and hospitality). Therefore, when *iwi* or *hapu* would host visitors or distinguished guests, great care would be given (following the *wero*) with regards to the food served (depending on the local delicacies), entertainment (such as songs and dances), and the provision of gifts (*kohā*). Failure to do so could decrease the *mana* of the hosts, and in some circumstances the visitors would seek *muru* or revenge in whatever way possible.

Underlying these purposes and functions is the notion of *whānau* or *whanaungatanga* (Key Informant A, 2006). *Whanaungatanga* has been referred to by a number of definitions and within various settings, however, Pere (1994) provides a coherent and direct description of this term by stating that *whanaungatanga*:

...deals with the practices that bond and strengthen the kinship ties of a *whānau*. The commitment of 'aroha' is vital to *whanaungatanga* and the survival of what the group sees as important. Loyalty, obligation, commitment, an inbuilt support system made the *whānau* a strong stable unit, within the *hapu*, and consequently the tribe. (p. 26)

In this sense it relates to a sense of belonging (through genealogical links), affection (such as the purpose of *manāki*) and closeness (i.e. within the space of *marae*). Functioning within *marae* settings fosters a *whānau* atmosphere where *manākitanga* (caring, sharing, hospitality) is practiced, genealogical links are maintained, and specific people are required for specific roles. Thus, the *marae* can be identified as a setting where *whānau* values are developed and implemented to co-act with the other associated functions and purposes of the *marae*.

To help understand what underpins the *marae* setting, it is important to discuss the encounters that occur on the *marae* and the conceptual domains that are fundamental to the *marae* setting. Table 1 from Durie (2001) provides an outline of the various interactions that occur on the *marae*, and their associated domains.

*Table 1.*

Elements of Marae Encounters (Domains)

- *Te marae ātea* (space)
- *Ngā tīkanga* (time)
- *Kohā* (the circle)
- *Tangata whenua* (mind and earth)

- *Tapu, noa* (safety)
- *Whaikōrero, waiata* (metaphorical domains)
- *Mana, manākitanga* (authority and generosity)
- *Tauparapara, karakia* (interconnectedness)
- *Tūhonohono* (synchronicity)

Briefly, the *te marae ātea*, or the ceremonial area in front of the meeting house, determines what behaviours and actions occur within the domain of geographical space. Underlying these is the distance that is always present between the hosts and guests during *pōwhiri* (welcoming ceremonies), and then the diminished distance during *hongi* (pressing of noses). Various occurrences on *te marae ātea*, such as; formal debates and speeches (*whaikōrero*), possible genealogical links, and welcoming ceremonies, all influence the distance between hosts and guests. Space on *marae* is used to ‘determine relationships and establish boundaries’ (Durie, 2001, p. 75).

Customary practices (*ngā tīkanga*) that are evident on *marae* influence the domain of time. Most obvious is the influence *whaikōrero* (formal oratory) can have on time. Depending on the situation, several speakers from both sides may opt to converse in the oratory proceedings. In doing so, time constraints and punctuality are forsaken for lengthy explanations and/or debate. An identical situation exists for catering, e.g., food must be served for guests following the *pōwhiri* no matter what time of day it is. However, in the tribal region of Te Arawa (as well as the Tūhoe tribe) the domain of time becomes of up most importance when darkness falls (D. Waiti, personal communication, March 10, 2004). During the night (or whilst darkness exists) guests are not welcomed onto the *marae* because it is believed that evil spirits are active at night. It does not matter

if the *ope* (party) travelled all day to reach the destination, the hosts will take the necessary precautions required to maintain favourable well-being within the *whānau*, *hapu*, *iwi* and *marae* (D. Waiti, personal communication, March 10, 2004). Therefore, ignoring preconceived notions of punctuality is required on *marae* in order to maintain the customary practices that have been handed down by our ancestors (Durie, 2001). In doing so, one can have a better appreciation and understanding of the *marae* experience.

The process of *kohā* (gift giving) on *marae* relates to the domain of the circle, with ‘circle’ being defined in terms of beginning at one point and returning to that point after some circuitous route (Durie, 2001). Although the *marae* contains rectangular shapes (such as the *wharenuī* [meeting house] and *marae ātea*), the processes and interactions that occur however, symbolise a circle. For example, *whaikōrero* (formal oratory) between the hosts and guests reflects a circle whether it is in the form of *paeke* (all speakers from one side first) or *taūutuutu* (speakers alternate in turn from each side) (Durie, 2001). The notion of *kohā* (gift) giving is another process on *marae* that demonstrates the circle. Briefly, following the completion of speeches during *pōwhiri*, the guests will place a *kohā* on the ground for the hosts – to signify the significance of the occasion and to establish a lasting relationship. In contemporary times, *kohā* has come to represent money to help with catering and accommodation costs, however, the primary purpose of *kohā* is to ‘strengthen ties and create mutual obligations’ (Durie, 2001, p. 79). Indeed, this *kohā* process places an obligation on the receiver to reciprocate the established relationship in the generations to come. Thus, Māori custom and philosophy emphasises relationships based on an understanding of mutuality and reciprocal obligations, as opposed to those based on ‘vertical hierarchies’ (Durie, 2001, p. 78). It is

these relationships, obligations, and specific *marae* processes that are representative of the circular domain of reciprocity on *marae*.

Fundamental to *marae* is the unique relationship with the land, strongly represented by the *tangata whenua* (people of the land) and their *tūrangawaewae*. Often referred to as being the guardians of the *marae*, *tangata whenua* serve to ‘keep the home fires burning’ (*ahi kaa roa*) by maintaining an intimate link with the land through a strong involvement with the *marae* and *papakāinga* (homeground) (Key Informant A, 2006). Inherent in this role is the link and affinity with the customary land (*tūrangawaewae*). Throughout many *whaikōrero* there are references to significant features of the customary land, such as a mountain, a river, or a lake, as it is a ‘recognition of the tribe’s intimate bond with the land’ (Durie, 2001, p. 79). Moreover, this example emphasises the mind-earth link (acknowledging and having respect for the land/environment – spiritually) that is evident on *marae* (Key Informant A, 2006).

Within the domain of interpersonal safety, are the notions of *tapu* and *noa*. The aspects that surround *tapu* and *noa* are strongly evident on *marae*, and they help guide the various interactions and processes that occur. There have been a number of definitions and interpretations for *tapu*, for example; (1) a sacred quality with relevance to divinity and higher beings (Best, 1924), and (2) as rules to prevent accidents or misfortune (Buck, 1950). *Noa* on the other hand is mostly associated with safety and being free from restriction/s. When *manuhiri* (visitors) attend *marae* there is a strong desire to avoid impinging on local custom by breaching aspects of *tapu* and *noa*. During the welcoming ceremony at *marae*, the visitors are considered *tapu* so there is to be no formal contact with the hosts until the *tapu* has been lessened for example, through a shared meal or

through sharing breath in *hongi* (Durie, 2001). Therefore the establishment of *noa*. This particular example illustrates how safety is another domain of thinking and behaviour that is evident on *marae* via the concepts of *tapu* and *noa*.

In relation to the metaphorical domain, *whaikōrero* and *waiata* (song) on *marae* convey metaphorical messages that help provide further understanding of the main points that are discussed. *Whaikōrero* are speeches or debates that serve a variety of purposes depending on the *kaupapa* (subject, theme) of the gathering. It is a mixture of ‘poetry, prose and song’ (Mahuta, 1974, p. 14) and is symbolic in nature. To further help communicate the speakers’ message, a *waiata* is sung in support. Although the *waiata* is also sung in support for the speaker, its main purpose is to convey the same message and meaning of the *whaikōrero* through a different medium. Each version is conveyed in a poetic way that is not related directly to the agenda, yet it still moves in the same direction (Durie, 2001). Similar to metaphorical language use in *whaikōrero*, the words and meanings of *waiata* are poetic and metaphorical whilst still conveying the same statement. Therefore, *marae* communication styles emphasise the metaphor domain as opposed to plain speaking (Durie, 2001).

The domains of authority and generosity on *marae* are represented by the concepts of *mana* and *manākitanga*. Although there is a stereotype that chiefs wield the power during *marae* encounters (Durie, 2001), it is important to correct this stance by drawing on the notions of representation, generosity, and relationship building. Representation is a function of *mana* (the power/authority or prestige that one incurs) through prowess, leadership, or genealogy (*mana tangata*), and also through land (*mana whenua*) and spiritual powers (*mana atua*). Within the *marae* context, representation through authority

(such as from an authoritative position) does not necessarily involve the wielding of power, but rather the extent to which *manākitanga* (caring and sharing) is practiced. Otherwise, ‘*mana* is diminished when visitors leave hungry or discontent’ (Durie, 2001, p. 83).

Within the domain of interconnectedness are *tauparapara* and *karakia*. Most orators on *marae* begin their comments with a *tauparapara*, an incantation that locates the speaker in terms of their tribe and *whakapapa* (genealogy). *Tauparapara* can also involve linking to the skies, the winds, the sea, the earth, and finally, to the people and the tribe. These concepts serve two purposes (a) to remind the audience that the comments to follow need to be considered in the broader context (Durie, 2001) and (b) to illustrate a sense of interconnectedness between those present, as well as those who have passed on before. *Karakia* can also serve this purpose. Briefly, *karakia* (prayers, incantations) can be used for a variety of purposes such as calming a storm, or opening a new *marae*, but its main purpose is to create a sense of unity with those present, those who have passed on, ancestors, the environment, and the spiritual powers (Salmond, 1975). *Tauparapara* and *karakia* provide examples of how interconnectedness is evident on *marae*.

Finally, the concept of *tūhonohono* represents the domain of synchronicity. Central to the term synchronicity, is the idea that events that occur at similar times are related even if no causal relationship is evident (Jaffe, 1979). During *marae* encounters, there are various occurrences that can seem unrelated, however Māori may see it otherwise. For example, a welcoming call (*karanga*) that falters may indicate that the events to take place are untimely (Durie, 2001). Similarly, a bird that fly’s into a room may signal a death. Unlike conventional science, the holistic views of *Māori* allows unrelated

phenomenon to be linked and related as a function of time. In this regard, the *marae* ‘allows Māori thinking to be shaped by the signs of nature, the reality of human perceptions, and the concurrent unfolding of events and incidents’ (Durie, 2001, p. 86).

Each of these domains and their associated *marae* encounters offer an understanding of Māori thinking and behaviour within a *marae* setting. Having provided an outline of the *marae* and its underlying values, it is now important to illustrate the connection with and promotion of the *taha whānau* cornerstone of the *Whare Tapa Whā* model.

Te hononga whānau (the whānau connection)

With its strong emphasis on extended relationships, interdependence, and tribal identity, *taha whānau* has a number of similarities with *marae* activities. As such, the *marae* is able to promote this cornerstone. There is a definitive theme of groupwork and group cohesion that is consistently represented by both of these paradigms, and flowing from it are a number of other concepts that help strengthen the link or relationship.

Bollen and Hoyle (1990) define cohesion as ‘an individuals sense of belonging to a particular group and his or her feelings of morale associated with memberships in groups’ (p. 482). In addition, the terms ‘cohesion’ and ‘cohesiveness’ are used in conjunction with team work to describe a group ‘in which the members all work together for a common goal, or one where everyone is ready to take responsibility for group chores’ (Cartwright, 1968, p. 70). In this respect, the different roles which are integral and required within *marae* settings suggest that such cohesion and teamwork must be evident. At the same time, for cohesion to occur there is a need for interdependency and adequate relationships between those involved, all of which are fundamentals of *taha whānau*. The concept of *whanaungatanga* that is evident on *marae* can also facilitate cohesiveness

among the *whānau* and *hapu*. Within the *marae* context, *whanaungatanga* relates to a sense of belonging (through genealogical links and tribal identity), affection (such as the purpose of *manāki*) and closeness (within the space of *marae*) (Key Informant A, 2006). Thus, these aspects of *whanaungatanga* (belonging, affection, and closeness) on *marae* can be reflected within the fundamentals of *taha whānau* (interdependency and optimal/adequate relationships).

A sense of pride can provide another avenue and reason for the attainment of cohesiveness. The tribal identity that is associated with *taha whānau* can manifest a sense of tribal pride, where individuals take pride in being a member of their *iwi*, their *hapu*, their *marae*, and their *whānau*. For example, during annual *Pā Wars*, different *marae* compete in various sporting, intellectual, and cultural activities to determine which *marae* is the most proficient at these typical pastimes. Functioning cohesively and successfully at *Pā Wars* requires collective input, collective vision, and a sense of belonging, which are also essential to proper *marae* function (Key Informant A, 2006).

The *manākitanga* (togetherness) theme that is evident on *marae*, also ties in with *taha whānau*. The notion of caring for people corresponds to both the *marae* and the *taha whānau* cornerstone. The ability to care for visitors is paramount to the correct functioning of *marae*. Providing this hospitality upholds the *mana* of the *marae* and its *tangata whenua* (hosts). Similarly, *taha whānau* requires a certain amount of care and kindness in terms of physical, emotional, and cultural support. With the *whānau* being the prime support system (not only physically, but mentally and emotionally) (Durie, 1998b), *manākitanga* is an obvious characteristic that is required.

The special role that *kaumātua* play on *marae* also promotes the *taha whānau* cornerstone. The role of *kaumātua* on *marae* is crucial to its functioning. As well as providing the foundation for *hapu*, their knowledge of the tribal area, its history, and their oratory prowess is incomparable with respect to the roles of others. *Taha whānau* implies that because of their special role within Māoridom, *kaumātua* need care and respect (Durie, 1985). This respect and care for *kaumātua* is strongly present on *marae* through *manākitanga* i.e., seating *kaumātua* first for meals or providing shelter during *pōwhiri* (welcoming ceremony) and other such ceremonies.

In conclusion, the *marae* (and all its associated aspects) can promote the *taha whānau* cornerstone, as the *marae* provides a setting which emphasises interdependence (e.g., care and respect for each other), extended kinship structures, and tribal identity. All of which are inherent in the *taha whānau* cornerstone.

### *Taha tīnana*

The *taha tīnana* cornerstone of Māori health and well-being is concerned with all aspects associated with bodily health and function. These include actions such as eating, cleansing, sleeping, defecating, and various recreational activities (such as physical activity, leisure, sport and exercise). This cornerstone has a strong familiarity with the views of health that Western health professionals propose, and on which health promotional efforts tend to be focused (Durie, 1985). However, Māori views on health are somewhat dissimilar to western views; in particular there is less emphasis on anatomy and body image. Rather, Māori place greater importance on everyday functional activities and their influence on good health and well-being. For example, the concepts of *tapu*

(sacred) and *noa* (free from restrictions) are extremely important to Māori health and well-being (Durie, 1998b), and it is these two concepts that can strongly influence the health and well-being of the individual, *whānau* and *hapu* (sub-tribe). In this respect, ritualised procedures largely dominated all functions of bodily health in traditional times (Durie, 1985) and to a lesser extent, in contemporary society. For example, if an individual were to enter an area of special significance without regard to the *tapu*, misfortune would most often follow.

The concepts of *tapu* and *noa* come to the fore when discussing the *taha tīnana* cornerstone. For example, certain parts of the body are considered *tapu*, such as the head, and thus require special care and consideration in aspects of everyday life. Simple gestures such as patting someone's head or leaving a hat on the floor are considered in breach of *tapu* and therefore *taha tīnana* (bodily health) is compromised. So too is the process of doing laundry in kitchen areas. However, the consumption of food in certain circumstances can remove the sacredness of *tapu* (Durie, 1994, 1998b) and reinstate a sense of *noa* for the person and the situation. Similar to how *hākari* (feast) are used following *pōwhiri* (welcoming process) and funerals to free those present from the sacredness of the previous occasion. The washing of hands with water after leaving cemeteries is another example of removing *tapu* and reinstating a sense of *noa*.

Menstruating women provide another example of *tapu*, and how it can influence bodily health and subsequent behaviour. During menstruation women are forbidden from swimming in rivers, lakes, or the sea, because they are considered *tapu* during this period and there is to be no assimilation with water or the common (in this case, other people who are bathing in the same bodies of water). Doing so not only breaches *tapu*, but can

also denote ill self-discipline on the female's behalf – as this act can diminish the *mana* (authority, prestige) of those involved and also be disrespectful towards the *mauri* (life force) of the water-body.

With the emphasis on bodily health and function, *taha tīnana* also encompasses everyday recreational activities such as food gathering and tending to gardens. In traditional and pre-colonial times, the everyday functioning of the extended *whānau*, *hapu*, *marae*, and *pā* relied heavily on these recreational activities (Kingi, 2005) which are now more increasingly considered as 'activities of daily living' (American College of Sports Medicine, 2006). Gathering or hunting food and *kaimoana* (seafood), tending to gardens and crops, constructing tools and utensils, as well as the upkeep/preparation of housing and communal space, were all essential to the good health and well-being of the *whānau*. Thus, these 'self-sufficient' activities became part of everyday life, as a 'means of ensuring the survival of future generations. 'For the most part, activities of the Māori were focused fundamentally, on survival and health' (Kingi, 2005, p. 7). However, these activities are not as evident in contemporary times. Various factors within modern society such as colonisation (McConnell, 2000), time and financial constraints, work commitments, urbanisation, have all impacted upon the availability and suitability of these activities (Walker, 2004). This change in society has transformed these functions from 'activities of daily living' to somewhat 'recreational/leisure activities'. Rather than being activities that are required for good health and well-being (Kingi, 2005; McConnell, 2000), they are now only optional, and optional only to those who have access to the environment and resources.

Māori views on body image are also different to those of western society. Slender body forms are not necessarily sought after by Māori, nor is there a strong disapproval within Māoridom with regards to obesity (Durie, 1998b). The low rates of anorexia nervosa associated with young Māori girls (Ministry of Health, 1997) further emphasises this differing view of body images (Durie, 1998b). Moreover, the daily activities of traditional times meant that Māori were physically active and therefore weight management was not an issue. However, it can be argued that the somewhat disappearance of these activities for Māori in modern society has contributed to the high obesity (Ministry of Health, 2004), and high hospital admission rates of cardiovascular disease (Ministry of Health, 2003) and diabetes (Ministry of Health, 2001). It is also important to consider the argument that Māori in traditional times may have carried extra adipose tissue in order to combat the harsh winter climates, as well as the long sea voyages. Researchers worldwide have debated the presence of a 'thrifty genotype' within certain races, which allows certain individuals and populations to withstand starvation, but at the same time, are more prone to obesity when adopting a western diet (Pearce, Foliaki, Sporle, & Cunningham, 2004). Therefore, the extra adipose tissue of Māori that is reported nowadays maybe a result of genetics as opposed to lifestyle (I. Heke, personal communication, August 12, 2003).

### *Mau rākau*

Various Māori concepts and practices were explored to promote the *taha tīnana* cornerstone. These included *rongoa Māori* (Māori medicine), *mirimiri* (traditional massage), and the sport of *waka ama*. However, the activity of *mau rākau* (ancient

weaponry) was chosen to promote the *taha tīnana* cornerstone because it has a strong association with physical activity (through the physical discipline required), and because it emphasises the importance of *tapu* and *noa* much like the *taha tīnana* cornerstone does. Although it can be argued that *waka ama* can be suitable to promote this cornerstone with its requisite for physical activity, *mau rākau* was also chosen as it is one of the last remaining Māori traditions that has not been influenced by western ideals (S. Ruwhiu, personal communication, August 11, 2006). *Waka ama* on the other hand, has been influenced by new technology such as lighter and stronger materials. *Rongoa Māori* was deemed to focus too strongly on illness as opposed to health. The treatment or process of *mirimiri* is passive, whereas an active process such as *mau rākau* was more suitable for this cornerstone. Finally, it was decided that *waka ama* is not as accessible (i.e. equipment and environment) as *mau rākau*, thus exclusion can occur. This section outlines and explains *mau rākau* and all its associated aspects to help illustrate the promotion of the *taha tīnana* cornerstone.

The term *mau rākau* refers to the activities and movements associated with the ancient Māori weapon, the *taiaha*. This long handled stick weapon formed the basis of weaponry for warriors and war parties (Key Informant B, 2006). It consists of the *ate* (the butt of the shaft), the *rau* (the blade), the *kakī* (the neck of the shaft), the *huruhuru* (feathers or hair lashed above the neck to represent headwear), a carved double-sided face, and finally, the *ārero* (a protruding tongue used for stabbing).

The origin of the *taiaha* comes from a traditional myth based on a quarrel between the two gods, *Tūmatauenga* (God of war) and *Rongomaraeroa* (God of cultivated food). The reason behind the quarrel is not understood, but it occurred upon their *kūmara* (sweet

potato) cultivation ground called Pohutukawa. *Tūmatauenga* went to see *Rurutangiākau* (a particular deity), to fetch weapons for himself (Key Informant B, 2006). From *Rurutangiākau* sprang the Te Ake-rautangi tree from which weapons such as *taiaha* and *tewhatewha*, were fashioned (Best, 1982). *Rurutangiākau* gave *Tūmatauenga* his own child, Te Ake-rautangi, who has two mouths, four eyes, four ears and four nostrils (Key Informant B, 2006). It is this quaint description that denotes the *taiaha* weapon, and it is the ‘two series of facial features that pertain to the double-faced head carved on the weapon’ (Best, 1982, p. 593). In the ensuing fight known as Moengatoto, *Rongomaraeroa* was defeated with the *taiaha*, cooked, and eaten by *Tūmatauenga*. This narrative shows that the *taiaha*, with its two sets of facial features, was gifted to *Tūmatauenga* by *Rurutangiākau*. This distinctive two-faced feature is still evident today through the carvings adorned on all *taiaha*. Key Informant B (2005) highlights that this element of personification has further importance as many *taiaha* represent an ancestor of great importance.

It has become reknown in contemporary times that the *taiaha* was a favourite weapon of choice amongst warriors and war parties in traditional times (Best, 2001). During those times, when warfare was part of everyday life, the training of warriors from a young age (Vayda, 1960) was imperative to the survival of *hapu* (sub-tribes) and villages (Buck, 1950). From the age of five days, young Māori males were blessed by *tohunga* (specialised priests) to dedicate the child to the two great services of Māoridom – war and labour (Best, 2001). In this regard, young warriors were trained by either *tohunga*, past coveted warriors, or other such knowledgeable elders in the art of warfare. Some of the important functions taught included the ability to evade a falling blow and to also regain

your feet in the shortest possible time after a fall (Buck, 1950). Indeed, students received instructions according to their age and strength as they progressed through the learning stages, and as they progressed through maturity (Key Informant B, 2006). Upon reaching adolescence, the students would then practice with real weapons (Key Informant B, 2006; Vayda, 1960). Moving on from this point of training however, the literature is scarce with regards to specific training for warfare. Nevertheless, other forms of training that were noted include *mamau* (wrestling), *mekemeke* (boxing), jumping, running or foot-races, stone throwing, and climbing (Buck, 1950).

Integral to warrior training and Māori warfare was the display of *haka* (war dances) and other demonstrations to elders prior to the departure of war parties. These demonstrations were examined by expert elders for evidence of the warrior's fitness and enthusiasm (Vayda, 1960), and their knowledge of the war dance and warfare itself (Buck, 1950). Mistakes in the movements or words were a sure sign of ill omens (Buck, 1950), and depending on the situation, individuals would be taken out of the war party, or the war party itself would warrant further training and incantations by *tohunga*.

At present, there are two main styles of *mau rākau* being conducted in Aotearoa. First, there is the Te Arawa style, which is based on Mokoia Island in Lake Kahumatamomoe. The main exponent of this style is Mita Mohi, and it has a strong focus on battle formations, foot work, *karakia*, and the *wero* (formal challenge) process. The other style comes from Ngāti Kahungunu, where there is a strong focus on teaching the art of fighting and ritualised movements. There is also reason to believe that other styles are conducted in the tribal areas of Tūhoe and the Whanganui River. However, there is

insufficient literature regarding these versions. The aspects surrounding these particular versions may be reserved for the distinguished *wānanga* (formal learning institutions).

The practice of learning *mau rākau* varies from 1-2 week long *wānanga* (live-ins), to weekend *wānanga*, and weekly practices as well. For the Kahungunu *wānanga*, women are permitted to participate, however the Te Arawa style prohibits the participation of women. During *wānanga*, the intense training can consist of physical activities such as leg work/movements, upper body strikes/blocks/parries, jumping exercises, medium distance runs, traditional war dances, as well as non-physical exercises such as learning *karakia* (incantations) and traditions. Becoming competent at *mau rākau* can take an entire lifetime. For example, to achieve the highest rank of *Pou Waru* of the Ngāti Kahungunu style requires years of intensive training. Some have completed it in 10 years, others much longer. Moreover, attaining *Pou Waru* status does not necessarily mean that there is no more content to be learnt, rather, training continues to maintain and hone the skills, and a teaching role is also undertaken (Key Informant B, 2005).

In respect to the holistic understanding of Māori, there are a number of associated concepts that are practiced, utilised, and integral to *mau rākau*. These include *whanaungatanga* (interpersonal connections), *manāki* (care and respect), *tapu* (sacred) and *noa* (free from restriction/sacredness), *tuakana-tēina* (reciprocal) type relationships, *karakia* (incantations), and *haka* (war dances) (Key Informant B, 2006).

*Whanaungatanga* is exhibited through the camaraderie and the collective desire that *mau rākau* entails. Participants in *mau rākau* have a collective vision of, among others, to learn and uphold this *tāonga* (treasure) that has been handed down by our ancestors (Key Informant B, 2006). There is a collective desire which is influenced by personal and/or

*whānau/hapu/iwi* pride, to become competent at this traditional Māori pastime. Similar to traditional times, fighting as a *hapu* was favourable, as relatives had common emotions, opinions, and kinship (Vayda, 1960). Thus for some, the stories of warrior bravery and skill as passed down by *kaumātua*, and as shown in books, provides encouragement to learn this pastime. Camaraderie is instilled through this collective goal of wanting to learn *mau rākau*, as well as any kinship links that maybe present.

In order for *whanaungatanga*, the concept of *manāki* (care and respect) must be present. Respect for each other, respect for the art of *mau rākau*, respect for the environment, and last but not least, respect for one's own *taiaha*. Respecting and caring for one's own *taiaha* is based on the concepts of *tapu* and *noa*. Before training and handling *taiaha*, *karakia* must be performed to free the *taiaha* from sacredness (i.e. to become *noa*), and to also ask the gods for their permission and guidance. Even after this is conducted, the *taiaha* must still be respected and cared for as it is spiritual figure based on human features. In this sense, the *ārero* (tongue) must not touch the ground, nor should the *taiaha* be stepped over whilst lying on the ground (as doing so to a human is a form of trampling on their *mana*), or dropped whilst performing manoeuvres. The *tuakana-tēina* (reciprocal) relationship is exhibited through the use of experienced and seasoned performers as teachers for the beginners. A close relationship is established in where *whanaungatanga* and *manākitanga* contribute to a *tuakana-tēina* relationship (Key Informant B, 2006). Finally, traditional war dances (*haka*) are learnt along with their meaning and history. These serve to maintain the dances, their traditions, tales and meanings.

In conclusion, *mau rākau* is a traditional form of physical and mental exercise that incorporates a number of Māori concepts. With its strong presence at this present time (Key Informant B, 2005), it is important that this tradition is maintained for future generations. Its link and incorporation of other Māori concepts further adds to this statement.

#### Te hononga tīnana (the tīnana connection)

The first example of *mau rākau* promoting the *taha tīnana* cornerstone is evident through the personification of the *taiaha*. Each part of the *taiaha* represents a corresponding body part of significance. These include the *ārero* (tongue), *karu* (eyes), and *kakī* (neck) among others. Indeed, the personification of *taiaha* then leans itself into the realms of *tapu* and *noa*. Such is the case when handling and storing the *taiaha*. It is imperative to ensure that the *ārero* (tongue) of the *taiaha* never touches the ground, for it is associated with the notion of wiping one's tongue along the ground, and so impinges on the *tapu* of the *taiaha*. The consumption of food is also controlled by *tapu* and *noa*, to the point that meal times are pre-prescribed and *karakia* must be conducted. Therefore, these aspects surrounding the *tapu* and *noa* of the *taiaha* are similar to those aspects considered important to bodily health and function (such as respecting the corresponding body parts and blessing food before consumption).

Another example is shown through the physical activities associated with *mau rākau*. As well as requiring cognitive thinking, a sense of spirituality, and the presence of *whanaungatanga*, *mau rākau* obviously requires physical movement and bodily function (Key Informant B, 2006). Imperative to *mau rākau* is the ability to execute particular lower body, upper body, and torso movements. These movements form the basis of *āhai*

(on-guard movements, postures and stances), combat fighting and *wero* (movements to entice a challenge). In conjunction with such activities, *mau rākau* must be conducted alcohol and drug free, so as to respect the *tāonga* to be learnt, to respect the gods, and to ensure well-being during training.

Physical activity and bodily functions are imperative to *mau rākau*, and therefore the concepts of *tapu* and *noa* are also integral. At the start of each training session, a *karakia* is conducted to seek guidance from the spiritual world, to acknowledge the *tapu* of the *tāonga* about to be learnt, and to instil a sense of *noa* to those participating. The same is also conducted at the end of training to reverse the process. No food is to be consumed during training as it is considered *noa*.

Thus, *mau rākau* is able to represent the underlying aspects of the *taha tīnana* cornerstone, and therefore promote health and well-being. Both constructs are based on or represent all aspects surrounding physical and bodily functions. Consequently, the concepts of *tapu* and *noa* are identified and upheld in order to maintain favourable health and well-being.

#### *Taha Wairua*

The *taha wairua* (spiritual) cornerstone is generally regarded as the most basic and essential element required for health (Durie, 1985). Fundamental to this cornerstone is an appreciation of, and an ability to understand, the unspoken influence of others, of the environment/land, of the dead, of higher beings, and of the heavens (Durie, 1985). Further to this point, there is an important need to be able to interpret and understand the links between these spiritual realm aspects and the human situation (Durie, 1994; 1998b).

Having an awareness of unseen and unspoken forces can open ones mind and enhance their understanding of themselves and others. Without a spiritual awareness and a *mauri* (life force, vitality, spirit), an individuals' well-being may be diminished, and is therefore more prone to ill-health or misfortune (Durie, 1985). To this extent, no degree of physical fitness can equate to an impoverished soul (Durie, 1994).

This spiritual awareness does not necessarily have to correlate with regular church-going, rather it is a basic understanding of the relationships between the human situation and the environment (Durie, 1998b). *Io* (the supreme God) is recognised as the creator of all things. *Io* controls the beginning and ending of all things, and therefore, provided the Māori language, the unique Māori culture, and all it entails.

Obviously a belief in God can be related to *taha wairua*, but so too is the appreciation and respect for the land and environment. Māori deem that everything has its own *mauri*, and this includes all natural and physical resources (Barlow, 2002; Durie, 1998a). Lakes, rivers, mountains, and the sea all have a spiritual significance to Māori (Durie, 1998b; Patterson, 1992). Links to the land are frequently heard on *marae* and throughout the country through song, incantations, traditional oratory, and tribal history. For example, during oratory speeches and debates on *marae*, the speakers make links with the land to outline, acknowledge, and support their *whakapapa* (genealogy). Most tribes also have *kaitiaki* (guardians) for their land and seas, such as the *Roha* (sting-ray) for the Hongoeka area and the *Mangopare* (Hammerhead shark) for some tribes of the far north. The *kaitiaki* serve to protect the tribes' resources, the people, and future generations. The use of *kaitiakitanga* is also relevant to the *taha wairua*'s acknowledgement of man's limitations within the environment and the need to oblige with and respect the elements

(Durie, 1985). These references to land and the mythical guardian associations illustrate the link that Māori have with the land and the interrelatedness with spiritual awareness. Durie (1985) further emphasises the importance of land to Māori by stating that, ‘without access to traditional or tribal land, many Māori elders would diagnose poor health’ (p. 483). Therefore, a spiritual link to tribal land is an important determinant of good health and well-being.

Another example of the links between the spiritual realm and the person, situation, or environment, are the Māori concepts of *ihi*, *wehi* and *wana*. *Ihi* can be defined as ‘vital force or personal magnetism which, radiating from a person, elicits in the beholder a response of awe and respect’ (Marsden, 1992). For example, when a *Kapahaka* group is performing to an audience, if the group performs to a high degree of excellence, they will emanate *ihi*. Moreover, *wehi* (fearsomeness) will occur when the audience will be in ‘awe at the presence of *ihi* of a person....and the manifestation of divine power (*mana*)’ (Marsden, 1992, p. 125). The popular and colloquial Māori saying (*kīwaha*), ‘*ka mau te wehi*’ which loosely translated means ‘that’s awesome’ or ‘how fascinating’ illustrates this awe in the presence of *ihi*. Finally, the domain or space in where *ihi* and *wehi* meet is deemed *wana* (or sublimity). *Wana* cannot be seen physically, but rather it is the convergence of these two spiritual forces.

A further link with the spiritual realm comes from the recently deceased. As the deceased person’s body drifts between the visible world and the spiritual dimension (through Te Rerenga Wairua which is situated at Cape Reinga), mourners are able to feel the spiritual presence of their own ancestors, their history, and the future (Durie, 1985;

1998b). It is for this reason that Māori strive to retrieve the deceased body from the hospital or undertaker as soon as possible.

*Taha wairua* also accounts for the presence of *mana* within people (Durie, 1985). Williams (1971, p. 172) provides a number of meanings for *mana* such as ‘authority, control’, ‘influence, prestige, power’, and ‘psychic force’. *Mana* can be derived from ancestors and *whakapapa* (*mana tīpuna*), from the gods of the Māori world (*mana atua*), from personal attainment and prowess (*mana tangata*) (Mead, 2003), and from inherited land or links to tribal land (*mana whenua*). Durie (1985) states however, that *mana* in terms of *taha wairua* is not necessarily derived from personal strengths or individual attainments (*mana tangata*), but rather it is a state that is conferred from the Gods (*mana atua*) which denotes a good level of health ‘without an egocentric core’ (p. 484). Similar to how *taha whānau* disregards personal independence, *taha wairua* and its accountability for *mana* is rather determined by forces outside of the individual (i.e. genealogical and spiritual forces). Finally, in this respect, ‘to possess *mana* is to know health’ (Durie, 1985, p. 484).

### *Tūrangawaewae*

Various Māori concepts were explored to promote the *taha wairua* cornerstone. *Whakapapa* (genealogical history) was considered because of its requirement to acknowledge the deceased, however, *tūrangawaewae* (customary link with the land) was chosen because one’s *whakapapa* must be known before a customary link with the land can be determined. Thus *tūrangawaewae* accommodates the *whakapapa* concept, and can also offer additional links to the spiritual dimension. The section outlines and explains the

*tūrangawaewae* concept and all its associated aspects to help illustrate the promotion of the *taha wairua* cornerstone.

In order to explain ‘*tūrangawaewae*’, the significance and importance of *whenua* (land) to Māori must be considered. First evidence of this link can be found in the creation narrative of *Ranginui* (the Sky father) and *Papatuanuku* (the Earth mother). Although there are various versions of this story throughout various tribes, this myth explains how *te ao marama* (the full light of day) was created when *Tāne-mahuta* (one of their seventy male children) laid on his back and pushed *Ranginui* and *Papatuanuku* apart in order to let light into the world. Had it not been for *Tāne-mahuta*’s initiative to separate his parents, then the world as we know it now would still be in *te pō* (darkness). Following the separation, some of the other children such as *Ruaūmoko* (God of volcanoes), *Tangaroa* (God of the sea), and *Tāne-mahuta* (God of the forests) chose to reside with *Papatuanuku*, whilst others such as *Tāwhirimātea* (God of the winds) chose to reside with the *Ranginui*. To this day, *Papatuanuku* and the different *atua* (and their associated domains) provide nurturance, stability and *whakapapa* (genealogy) for Māori. Much like a mother is loved, so too is *Papatuanuku*.

The importance of land is also epitomised by the various meanings and interrelations of the word *whenua*. *Whenua* can also denote placenta (Pere, 1979), and integral to Māori culture is the burial of the placenta in the earth following birth. Each generation is bound to the earth by this custom, termed *iho whenua* (Walker, 2004). So within Māori custom *whenua* has the dual meanings of land and placenta, and the term *iho whenua* provides the link between these two meanings, and the link between land and child birth. ‘Both sustain life; both provide a link with the wider environment’ (Durie, 1999a, p. 356). As

well as being the primary ancestor, *Papatuanuku* also embodies the past, the present, and is the foundation for future generations (Williams, 2004). Access to land is imperative for cultural attainment and maintenance.

Various *whakatauki* and *pepeha* (proverbs) also emphasise the special respect for land. For example, ‘*ma te whenua ka whai oranga ai*’ (land alone gives man his sustenance), and ‘*te toto o te tangata, he kai; te oranga o te tangata, he whenua*’ (food supplies the blood of human beings, but the welfare of humans is based on land). In the latter example, ‘*oranga*’ comes from ‘*ora*’ meaning life or health (not only in the physical sense but also the spiritual). This then suggests that the word ‘welfare’ has an added dimension of physical and spiritual health (well-being). In addition, the following aphorisms are just some examples used to show respect for the land and to also exhibit one’s tribal link;

Ko Motutawa te maunga, ko Ohau te awa, ko Pikiāo te tangata  
(Motutawa is the mountain, Ohau is the river, Pikiāo is the man).

Ko Tongariro te maunga, ko Taupo te moana, ko Te Heuheu te tangata  
(Tongariro is the mountain, Taupo is the sea, Te Heuheu is the man).

Inherent to Māori and the link with *whenua* is the presence of *whakapapa* (genealogy). All Māori possess *whakapapa* through a genealogical link to an ancestor of whom for most instances, provides the name of the *hapu* or *iwi*. This *whakapapa* connects people to their kin and ancestors, to the land (i.e. the tribes mountain, river etc.), and to cultural concepts/customs (Key Informant C, 2006). Without *whakapapa*, one has no relationship with their kin, no knowledge of cultural tradition and customs, and more importantly, no customary link with the land.

This strong faith in land is no more evident than the concept of *tūrangawaewae*. *Tūrangawaewae* is a term often used to locate the very source and origin of one's *whakapapa*, and it is also referred to as one's 'roots' or 'place of belonging' (Ka'ai & Higgins, 2004). It is a situational identity that denotes 'the standing and identity of a people' (Walker, 2004, p. 70), 'the right to a place for the feet to stand' (Mead, 2003, p. 43), and indicates a person's rights and obligations to a certain place. This situational identity is based on someone's *whakapapa*, which entails a geographical boundary of tribal land. Fundamental to *whakapapa* and tribal land is the ability to identify prominent physical features of the land, features such as rivers, lakes, streams, mountains, hilltops etc. Each *hapu* (sub-tribe) have their own distinctive land features that have been handed down through the generations. It's these symbols that are part of a person's 'aura or spiritual significance, and are an important part of their credentials' (Mead, 1997, p. 200).

An important consideration with Māori and *tūrangawaewae* is the link with ancestors. When conducting one's self on ancestral land there are set obligations and rules that need to be followed. For example, using an ancestor's name in vain, wearing shoes or hats in *wharehau* (meeting houses) can be deemed disrespectful. Furthermore, many Māori consider accepting monetary compensation for confiscated land as disrespectful because 'you don't eat your ancestors' (Patterson, 1992, p. 89). The fact that the bones of ancestors lay in the land of which money is offered, and that the money is used for survival (e.g., housing and food), means that in reality, the recipients would undeniably be eating their ancestors (King, 1977). Ancestors provide the names for *hapu* (sub-tribe), *iwi* (tribe), *marae* and *wharehau*, they provide support and assistance when called upon

by descendants (Mead, 2003), and maintain *whakapapa* and identity, therefore respect is duly required and given.

For Key Informant C (2005), *tūrangawaewae* means her home *kāinga*, ‘where I was born, where I grew up, and where I belong’. In this case, a small settlement named Puketi which is nestled in the Whangape valley of Te-Tai-Tokerau (Northland). The key here is her comment ‘where I belong’, that is, she belongs there at her *tūrangawaewae* because her *whānau/hapu* own the land and have kept the ‘home fires burning’ (*ahi kaa*) since the arrival of their *waka* (canoe) Māmari. No matter where she goes in this world, she always thinks of her *tūrangawaewae* because it is a link to her *tīpuna* (ancestors) and the generations to come. During the 1930-1960’s, Key Informant C (2005) tells of numerous *tangi* (funerals), social occasions, and church services that were held in Puketi. As a result of these activities and the genealogical link to the area, she is aware of the spiritual element whenever she returns to Puketi – ‘we were aware of the spiritual world, we were a part of it and we lived it’ (Key Informant C, 2005). As such, she feels the presence (*‘ka ora mai ano ratou’* – ‘they’re alive again’) of all her *tīpuna*, *whānau*, and *whanaunga* (relations) whenever she returns to Puketi (Key Informant C, 2005). Therefore, growing up she became very aware of the spiritual world because Puketi was the centre of their *tīkanga* (traditional customs) and their existence as who they were - Māori or more specifically, their family (Murray), sub-tribe (Ngāti Haua), and tribe (Te Rarawa).

For many Māori, returning to their *tūrangawaewae* provides the opportunity to ‘walk with their ancestors’ (Key Informant C, 2005). Personally, whenever I return to my *tūrangawaewae* (whether it be Mourea on my dad’s side or Puketi on my mum’s side) I feel that my ancestors are present and looking over me. The fact that ancestor remains are

situated on tribal lands also adds to this unique feeling of oneness with these significant spirits. This situation involves a combination of cognitive, affective and emotional feelings that also relate to the *taha hinengaro* (such as the actualization of *mana whenua*), *taha tīnana* (i.e. goosebumps) and *taha wairua* (such as feelings of tranquillity) cornerstones of the Whare Tapa Whā model. In essence, ‘ancestors are, in a very real sense, felt to live on in their descendants’ (Patterson, 1992, p. 65). Therefore, when present at one’s *tūrangawaewae*, individuals live through their, and represent their ancestors. This situation entails a sense of one’s *whakapapa* and therefore, an intimate link with land and the environment.

To conclude this section, the following quote by the famous Māori leader Manuhuia Bennett (1979) summarises this concept of *tūrangawaewae*;

...in essence the concept of *tūrangawaewae* is that the land becomes an outward and visible sign of something that is deeply spiritual. It is a source of nourishment to the inner man rather than to his physical needs. His identity belongs there, his sense of self-awareness begins there, his sense of *mana* and importance belong there. (p. 78)

Te hononga wairua (the wairua connection)

There are numerous examples of *tūrangawaewae* promoting the *taha wairua* cornerstone. Fundamental to these examples is the requirement of spiritual awareness, or more concisely, the ability to experience a higher sense of self, the ability to connect to or relate to a higher power/being deity, as well as the ability to understand that there is

spiritual presence within the environment. Based on the content above, it is important to exemplify these examples.

The first major example is the emphasis on and appreciation of the environment, the land, mountains, rivers and other such landmarks. The importance of land to Māori has been accentuated, and it is this view that forms the main factor of *tūrangawaewae*. Moreover, the spiritual component of *taha wairua* also acknowledges the importance of land by recognising the spiritual influence of the environment (land, mountains, rivers etc). *Taha wairua* further achieves this by acknowledging that there is *mauri* (life-force) in everything; the rivers, the mountains, the lakes, the seas.

The concept of *mana* (prestige, power) is another aspect that can be accounted for by *tūrangawaewae* and *taha wairua*. *Taha wairua* accounts for *mana* through the notions of *mana atua* (conferred from the Gods), *mana tangata* (from personal attainment and prowess), *mana tīpuna* (derived from ancestors and *whakapapa*), and *mana whenua* (from links to tribal land or inherited land) (Mead, 2003). However, the last form of *mana*, *mana whenua*, cannot be attained without a sense of *tūrangawaewae*. Therefore, the concept of *mana whenua* can provide a link between the *taha wairua* cornerstone and *tūrangawaewae*.

A study by Fox (1997) showed how wilderness experiences can foster a spiritual connection with spirits. This sense of spiritual presence is similar to those feelings that occur when amidst one's *tūrangawaewae*. '...I just had this overwhelming feeling that I had all these people around me... my aunties and uncles that had died' (Fox, 1997, p. 62). Moreover, Key Informant C's view of walking 'with your ancestors', implies that spirits are present whilst she is at her *tūrangawaewae*. Similar to how *tūrangawaewae* is based

on a link to ancestral land and an awareness of ones ancestors (such as through one's *whakapapa*), so too does the *taha wairua* cornerstone as it accounts for *mana tīpuna* and it requires an interpretation of the spiritual realm. Interpreting the spiritual realm involves among other things, an appreciation and awareness of ancestors and the *mauri* (life force, vitality, spirit) of the mountains, rivers, lakes, and the sea. Again highlighting the sense of spirituality associated with *tūrangawaewae*.

Finally, there is reasonable evidence to suggest that the concept of *kaitiakitanga* (guardianship, stewardship) can also illustrate a link between the *tūrangawaewae* concept and *taha wairua*. On one hand, *taha wairua* accounts for *kaitiakitanga* because of the required appreciation and respect for the land. In terms of *tūrangawaewae*, the concept of *kaitiakitanga* is evident when an individual is present on their ancestral lands. Along with the associated deity, descendants must also practice guardianship of the land and its resources to ensure that conservation is sustained, and the peoples' *mana* is maintained. Therefore, it is clear that the concept of *kaitiakitanga* is reflected in both of the constructs concerned.

In conclusion, the concept of *tūrangawaewae* is able to promote the *taha wairua* cornerstone. It is through the emphasis on spirituality and the respect and awareness of land, which provides the relationship. More importantly, representing *taha wairua* also promotes health and well-being.

### *Taha Hinengaro*

The *taha hinengaro* cornerstone of the Whare Tapa Whā model of Māori health and well-being is concerned with the expression of thoughts and feelings (Durie, 1998b).

These thoughts and feelings can be derived from the *mauri* and *mana* that individuals possess. *Mauri* (the life principle) is *te hau ora* (the living breath) imparted at birth, and signified by the sneeze, when a newborn child responds to its new environment. *Mana* can be defined as ‘prestige, power’, ‘psychic force’ (Williams, 1971, p. 172), and this *mana* can be derived from various sources such as ancestors (*Mana Tīpuna*) (Mead, 2003), and customary land or inherited land (*Mana Whenua*).

Fundamental to this element is the notion that Māori do not view thoughts and feelings as separate functions. ‘While western thinking distinguishes between the spoken word and emotions (and generally encourages the word more than feeling), Māori do not draw such a sharp distinction’ (Durie, 1998b, p. 71). Rather, Māori place equal importance on verbal and non-verbal communication without the expectation that emotional expression is only valid if it can be converted into a verbal statement (Durie, 1994). The *taha hinengaro* cornerstone bases communication (especially ‘face to face’) within Māoridom, on overt messages. Unspoken signals conveyed through subtle gestures, eye movement, and body language are sometimes prized more so than the spoken word. ‘Emotional communication can assume an importance which is as meaningful as an exchange of words and valued just as much’ (Durie, 1998b, p. 71). An example of this form of communication is evident in the performance of *kapahaka* (traditional song and dance). During the performance of these items, *pukana* (bulging eyes) and *whētero* (poking the tongue out) are encouraged to help emphasise the words and themes, and are sometimes encouraged to replace the words altogether. Therefore, emotional awareness relies on cognition and adequate expression.

Furthermore, Māori strive to think integratively and holistically, as opposed to the analytical thinking of western society (Durie, 1985; 1994). Analytical understanding which is based on the division of context into smaller and smaller parts, is not in accordance to Māori thinking which synthesises thinking into a wider contextual system, in where similarities and comparisons can be determined at a higher level of organisation (Durie, 1998b). Thus, Māori attempt to understand and explain health related events, comments, and situations within wider social contexts. For example, poor health can be due a breakdown in harmony between an individual and the wider environment, as well as a disregard by an individual towards events and situations from the wider environment. Although the individuals' thoughts, feelings, and emotions are influenced by sources located within, it is imperative that these understandings are explained with reference to the wider environment.

'Consistent with this style of thinking, health is viewed as an interrelated phenomenon rather than an intra-personal one ... An individual whose thinking embraces several systems and who is able to join these together with integrative ideas' (Durie, 1985, p. 484) demonstrates a level of health and well-being admired by Māori. Durie (1998b) also provides a number of Māori words and expressions that bind the individual to the wider environment. For example, *whenua* can mean both placenta and land, *iwi* can denote both bone (*kō-iwi*) and tribe, *hapu* can be translated to both pregnant and sub-tribe. These examples again illustrate the holistic thinking of Māori as well as the strong link to wider contextual and environmental settings.

### *Te Reo*

Various Māori concepts were explored to promote the *taha hinengaro* cornerstone. These included *tūrangawaewae* (customary link with the land) and *whakāro* (thought/thinking). *Tūrangawaewae* was deemed more appropriate to promote the *taha wairua* cornerstone due to its spiritual significance, and although *whakāro* seemed suitable as a link to *taha hinengaro*, *te reo* (Māori language) was selected as it can also explain *whakāro*. The ability of *te reo* to account for both thought and feeling through spoken language justifies its selection. Furthermore, Māori language is vitally important to the survival of Māori culture that it seemed improper to not incorporate *te reo* into the study. This section outlines and explains *te reo* and all its associated aspects, to help illustrate the link between the *te reo* and the *taha hinengaro* cornerstone. Firstly, the origins of this language will be explained, following this, the attempts to discourage the language will be discussed. Finally, the revitalisation and use of *te reo* in contemporary times will be outlined.

Māori language is commonly referred to by many as a *tāonga* (treasure) (King, 2003). ‘*Ko te reo te mauri o te mana Māori* - the language is the life essence of Māori *mana*’ (Henare, 1987, p. foreword). Some argue that language is required to fully experience the richness and philosophies of a culture, and that language cannot be separated from culture (Key Informant D, 2006). Along with the *marae*, *te reo* (Māori language) has survived the effects of colonisation, and its prevalence can be seen and heard at schools, *marae*, on television, and in other various parts of society (Key Informant D, 2006).

According to McEwan (1966), Māori language is a Polynesian language which is of the Austronesian family of languages. Moreover, McEwan (1966) considers this family

of languages (before the expansion of English) to have the greatest continuous spread throughout the globe. More precisely, Māori language belongs to the East Polynesian branch, which also includes the languages of Hawaii, Marquesan, Tahitian, and Cook Island Māori. In comparison to the Western Polynesian branch (which includes Tongan, Samoan, and Niuean), a Māori speaker would have less difficulty understanding Hawaiian than he/she would Tongan or Samoan, irrespective of the greater distance to Hawai'i than Tonga or Samoa. Further to this distinctive understanding within and between the two Polynesian branches, is the fact that those of the East Polynesian branch consider their origin/s to originate from the mythical homeland of Hawaiki. Therefore, the Eastern Polynesian languages can all claim to originate from Hawaiki, an origin not well considered and accepted by non-Māori (Buck, 1950).

In comparison to other Polynesian languages, the Māori language has an extraordinarily rich vocabulary and well-maintained word-forms (McEwan, 1966). The extensive vocabulary is adequate to convey anything connected with Māori culture at its highest development (Buck, 1950). With over 30,000 words, the Māori language can lay claim to being the richest language in Polynesia (McEwan, 1966). Examples include that which is mentioned by McEwan (1966), where he identifies fourteen different Māori terms for the head of a man.

Fundamental to the Māori language are its different language functions such as *whakatauki* (proverbs) and *kīwaha* (colloquial sayings), which serve to provide (among other things) metaphorical meanings. *Whakatauki* (proverbs) are traditional sayings that relate to a person and/or situation that occurred previously. Integral to these proverbs are the metaphorical meanings that underpin the cognitive processes of Māori (Key

Informant D, 2006). These proverbs have been described as ‘evocative’ and ‘succinct’, and highlight the rich vocabulary of *te reo*. A common *whakatauki* states ‘*Ma pango ma whero ka oti ai te mahi* – through black and red the work will be completed’, which indicates that the leaders and workers must combine to achieve results. *Kīwaha* are similar to *whakatauki* in the fact that they both highlight the rich and powerful vocabulary of *te reo*. Unlike the proverbial sayings of *whakatauki* however, *kīwaha* are colloquial sayings that provide range and diversity in terms of verbal communication among *te reo* speakers. For example, ‘*ki wīwī ki wāwā*’ is a common saying used among Māori to describe a distant place or an unidentifiable location.

At the time of the signing of the Treaty of Waitangi in February 1840, Māori was the dominant language for the majority of New Zealand’s residents. As well as being the language of the original Treaty document, *te reo* was also the social, commercial, and political language of communication. By the 1850’s however, the colonial government was gradually taking control over Māori and the missionaries, especially in educational affairs (Benton, 1987). Following on from these years, the use of *te reo* in educational settings (such as schools) was slowly eradicated. Acts such as the Education Accordance Act of 1847 and the Native Schools Act of 1867 all contributed to hastening the demise of the Māori language (Moorfield & Johnston, 2004; Te Puni Kokiri, 1998). The urbanisation and ‘pepper-potting’ that occurred following WWII also contributed to the demise. In addition, various accounts after the 1900’s record how Māori children were punished (both verbally and physically) for speaking *te reo* at school. Consequently, results from Richard Benton’s survey of Māori speakers between 1973 - 1978 showed that only 20% of Māori were fluent, and the majority of those were elderly (Moorfield &

Johnston, 2004). Therefore, the Māori language had somewhat vanished as a result of both colonisation and imperialism. Around the time of Benton's survey, Māori had identified the poor state of *te reo*, and so begun the drive to restore the Māori language.

In this respect, *te reo* is now flourishing in contemporary times in a wide range of contexts, and through a wide variety of mechanisms (Key Informant D, 2006). The following list, adapted from Moorfield & Johnston (1994, p. 44), provides an outline of some of these developments:

- *Te Kohanga Reo* (Māori language-medium pre-school), *Kura Kaupapa Māori* (Māori language-medium primary school), *Wharekura* (Māori language-medium secondary school), and *Wānanga* (Māori tertiary institutions) all use *te reo* as the form of verbal communication;
- Māori-operated radio stations, all of which use *te reo* to some degree;
- Some Māori language programs (such as those on channel ONE), and the establishment of Māori Television in March 2004;
- the 1987 Māori language Act which made *te reo* an official language of New Zealand;
- Māori studies departments at all New Zealand universities;
- 1995 was 'The Year of the Māori Language';
- and popular music composed and sung in *te reo*.

Moreover, the National Māori language survey (NML) of 1995 shows that these initiatives are having a positive impact on the restoration and revitalisation of *te reo*. For example, the survey showed that 59% of Māori have some proficiency in *te reo*, and 71% of those surveyed indicated that they listened to *te reo* on both radio and television

in a typical week (Te Puni Kokiri, 1998). Furthermore, the survey also showed that a fluent parent was/is more likely to send their children to bilingual and/or immersion schools such as *Kohanga Reo* or *Kura Kaupapa Māori*.

In conclusion, the Māori language is an integral component of the Māori culture. For the future development of Māori within society, the language must remain (Key Informant D, 2006). Initiatives developed by past leaders such as the *Kohanga Reo* movement and Māori Television, despite previous government actions to oppress the language, will help ensure that the language survives and remains a bastion as an official language of New Zealand.

Te hononga hinengaro (the hinengaro connection)

With its strong emphasis on the expression of thoughts and feelings, the influence of *mana* and *mauri*, and thinking that is integrative and holistic, *taha hinengaro* is able to align *te reo* within its construct. In essence, *te reo* is a Māori specific expression of thought and feeling, highlighting its ability to promote *taha hinengaro*. *Te reo* provides the foundation for communicating ideas, thoughts, and feelings. With the use of *whakatauki* and *kīwaha*, *te reo* is able to communicate a wide variety of thoughts, feelings, and emotions. Thus, this use of metaphorical language (i.e. by bringing in other themes to help make the point) can be considered ‘integrative’ and ‘holistic’, another basis of the *taha hinengaro* cornerstone.

*Taha hinengaro* also considers that a person’s thoughts and feelings are influenced by their sense of *mana* and *mauri*. *Mana* has been found to derive from personal attributes, and inferred from ancestors, land, and the gods (Mead, 2003). Accordingly, in order for *mana* to be present there must be representation of *te reo* as it is required for correct

cultural transmission and it positively contributes to personal attributes. Having a greater sense of *te reo* positively influences one's *mana*, and thus the *taha hinengaro* is represented.

In conclusion, *te reo* is able to promote the *taha hinegaro* cornerstone, as the Māori language can provide a Māori-specific form of expressing one's thoughts and feelings, and it also utilises metaphorical language to provide a holistic understanding that can pertain to the situation.

### *Conclusion*

The four Māori concepts chosen can all represent and promote their respective cornerstone of health. The *marae* can promote the *taha whānau* cornerstone through its emphasis on *whanaungatanga* and *whānau*. *Mau rākau* can promote the *taha tīnana* cornerstone through its strong involvement of physical movement, as well as the concepts of *tapu* and *noa*. The concept of *tūrangawaewae* can promote the *taha wairua* cornerstone through its special link with the environment and ancestors. Finally, the use of *te reo* can promote the *taha hinengaro* cornerstone as it is a culturally relevant form of expressing thoughts and feelings. Moreover, these concepts can provide culturally relevant forms of physical activity promotion. Accordingly, the following four chapters which represent each of the cornerstones of health, attempt to describe and explain 'how' and 'why' the Māori concepts can promote physical activity.

## CHAPTER V: TAHA WHĀNAU

‘Ehara taku toa I te toa takitahi, engari he toa takitini’

*‘Mine is not the strength of one alone, it is the strength of many’*

### *The Psychology of Physical Activity and Marae*

The purpose of this chapter is to demonstrate how the concept of *marae* can positively influence Māori to become more physically active. The first portion of this chapter highlights the promotion of physical activity on *marae*. Following from that, reference will be made to the psychology of physical activity to explain ‘how’ and ‘why’ *marae* can promote physical activity, and motivate Māori to do so.

The word ‘*Marae*’ does not necessarily invoke images or thoughts of exercise or physical activity. However during contemporary times, *marae* have served as a central arena for exercise and physical activity for Māori. To help promote healthy lifestyles various exercise and physical activities were developed by Māori, and the *marae* was promoted as a relevant forum where the activities can be conducted (Te Puni Kokiri, 1995b). For example, ‘Health Through the Marae’ is a Ngāti Te Ata initiative developed in 1990, which utilises their *marae* (Tahuna *marae*) and Māori *tīkanga* as a forum for health promotion (Forster & Ratima, 1997). The concept of *manāki tangata* (caring for the people) with an added emphasis on encouraging good health, is a founding principle of this programme (Te Puni Kokiri, 1995a). Therefore, as well as being designed to help with weight reduction and physical activity participation, this initiative also focuses on smoking and alcohol abuse.

One specific example of this programme is Maraerobics, a form of aerobics that is conducted on *marae*, using Māori forms of movement, and is framed from a Māori world-view (Patterson, 2004). Maraerobics developer Tahuna Minhinnick, sees body culture fitness as the next evolution of the popular exercises such as ‘jazzercise’, ‘step’ and ‘pump’ development (Patterson, 2004). Moreover, this particular example illustrates how Māori have taken a contemporary physical activity such as aerobics, applied it to a traditional Māori domain, and then presented it through a contemporary medium such as television. This displays the ability of Māori to be resourceful and innovative. Tahuna *marae* also has a health service entitled ‘Te Whare Oranga’ which provides access to (among other things) an aerobics studio, weights space, and sauna.

Te Papa Takaro o Te Arawa is another *iwi*-based health initiative that promotes healthy lifestyles through sport and exercise events some of which are *marae*-based. The annual Te Arawa sports day attracts up to 10,000 participants, indicating its effectiveness in promoting healthy lifestyles through the promotion of physical activity (Te Puni Kokiri, 1995c). Other activities conducted on *marae* include, fun walks/runs on *whānau* days (to help raise awareness of the health benefits), *mirimiri* (traditional massage), *kohikohi kaimoana* (seafood gathering), eeling, *mahinga kai* (traditional gathering and preservation of food sources), *mau rākau wānanga* (traditional weaponry camps), *Tī-rakau* and *Tītītōrea* (traditional stick games), *kapahaka* (traditional performing arts) and *Pā Wars* (sport, intellectual, and cultural competitions between the different sub-tribes of each tribe). These examples exemplify how the *marae* has been shown to provide an excellent environment to promote and participate in physical activity.

The concept of relatedness is a construct of SDT that can be promoted within the *marae*. Relatedness is characterised by the development of close and secure relationships within ones social context (Deci & Ryan, 1985). According to Ryan and Deci (2000) the quality of relationships with others, feeling understood, participating in meaningful dialogue, and having fun with others are all components of relatedness. Relatedness is also considered bidirectional, in that one not only seeks to care for and give but also receive care and help (Landry & Solmon, 2002). The *marae* is one such forum where relatedness is evident. The *whānau* (family), *whanaungatanga* (extended kinship ties) and *whakapapa* (genealogy) links that are integral to *marae* tradition and functioning, promote social contexts that are strongly inclusive to a sense of relatedness.

The Health Through the Marae and Te Papa Takaro o Te Arawa programs both exemplify the *marae* as a suitable setting for physical activity. The *marae* offers a relevant cultural setting for physical activity, fostering positive perceptions of relatedness. For example, the Te Whare Oranga provides a secure and relaxed environment as it is *marae* based (Forster & Ratima, 1997), and ‘*whānau* feel a sense of belonging [to each other and the *iwi/hapu*] when they work out...something they probably do not feel at any other health centre’ (Te Puni Kokiri, 1995a, p. 22). The desire to be involved with *whānau* and *hapu* when participating in physical activity (Rewi, 1992; Te Puni Kokiri, 1995b), reflects the high participation numbers of the Te Arawa Sports Day. This also indicates the sense of relatedness that these participants feel towards their *whakapapa* and *iwi* identity. From personal attendance and discussions at these *whānau/iwi* sport, health and physical activity gatherings, I have experienced this strong atmosphere of *whakawhanaungatanga* (togetherness), where my relations have

enjoyed the opportunity to rekindle and reaffirm past relationships in a positive cultural setting. In this case, the *marae* can promote a sense of relatedness within a physical activity setting.

Integral to the *marae*-based physical activities discussed are some of the fundamental concepts of *marae*, these being *manākitanga* (caring) and *whanaungatanga* (togetherness). Caring for each other and creating a sense of belonging within the group is strongly emphasised during *marae* activities. The 1995 report on Māori participation in physical leisure by Te Puni Kokiri (1995b), advocated that *marae*-based programmes are more relaxed, more spontaneous, and fun. For example, at a recent *rāranga* (weaving) *wānanga* at Tamakahu marae in Nuhaka, the participants reported that ‘we sang, joked, cried and enjoyed each others company the whole time the *wānanga* was on’ (Te Iwi o Rakaipaaka Incorporated, 2005, p. not given). In fact, many *marae*-based physical activity events are successful in creating an enjoyable and friendly atmosphere, as well as positive participant numbers. At a recent Otautahi Māori Sports Festival held at Aranui High School, Mrs Wendy Dallas-Katoa (chairperson of local Māori sports organisation) stated that ‘Māori still don’t always participate [in wider community events], but they are OK about sports events’ (Te Puni Kokiri, 2005b, p. 16), indicating that sport and exercise events are favourable to Māori, and more so when conducted on *marae* or within *marae* type settings (such as schools and school *marae*’s).

The concepts of *whanaungatanga* and *manākitanga* support an underlying theme of group cohesion within the *marae*. Cohesion has been defined by Carron (1982) as the tendency for a group to stick together and remain unified in the pursuit of their goals and objectives. This definition then suggests that in order to attain group cohesion, a sense of

belonging and relatedness must be present. More precisely, relatedness has been operationalised as cohesion (Turner, Irwin, Tschann, & Millstein, 1993), and belonging has been considered an element of cohesion (Carron & Chelladurai, 1981). The *marae* promotes cohesion through group/team work – as there is a strong emphasis on *whanaungatanga* (togetherness), *kōtahitanga* (unity, togetherness) and *manākitanga* (caring, sharing) in order to uphold the *mana* of the *marae* and *hapu* (sub-tribe) (Mead, 2003). Thus, upholding the *mana* of the *marae* occurs by correctly carrying out the functions of *marae* such as caring for visitors and providing a secure cultural environment for the *tangata whenua* (hosts). Considerable research has shown that the more cohesive a group is, the more likely its members will exhibit increased attendance and motivation to attend (Carron, 2000; Carron, Widmeyer, & Brawley, 1988; Spink & Carron, 1992, 1993). Other benefits include improved individual self efficacy to overcome barriers to exercise, increased task and social interaction and communication, conformity to group norms, and satisfaction and enjoyment (therefore indicating intrinsic motivation) (Estabrooks & Carron, 2000; Courneya, 1995). Taken together, these positive effects of cohesion can help increase psychological adjustment to the group dynamics of the physical activity setting and environment. Accordingly, the *marae* promotes collective unity and group cohesion through *manākitanga* (caring, sharing, hospitality), *whakapapa* (genealogy), *kōtahitanga* (unity, togetherness), *whanaungatanga*, and the *mana* and pride associated with *whānau*, *marae*, *hapu*, and *iwi*.

The Ngāti Porou East Coast (NPEC) rugby team provides another example of the *marae* being utilised as a forum to promote team bonding and cohesion (Waiti, 2003). Each year before the season starts, the squad assembles for a weeklong stay at a local

Ngāti Porou *marae*. During the stay, players and administrators learn local tradition and *whakapapa* (genealogy), *waiata* (song), and other such cultural activities. Players found this experience beneficial for creating a sense of *kōtahitanga* and *whanaungatanga* (Waiti, 2003). One player mentioned that ‘All those things about going on the *marae*... [By] just doing those we become a *whānau*’ (Waiti, 2003, p. 40). Another player stated that ‘with the guys you get the warm and fuzzy feeling...Its all about those *aroha* [and] *manāki* [concepts]. Once you grasp the [*tīkanga* aspects]...it all comes together because [it’s from] living on the *marae*, the *marae* situation’ (Waiti, 2003, p. 46).

It seems that the *marae* may foster the ‘collective’ (i.e. the *whānau*) as a source of motivation to participate (in the various *marae*-based physical activity programs) in a similar sense to how group cohesion can foster an increased motivation for attendance to exercise (c.f. Spink & Carron, 1992, 1993; Carron, Widmeyer, & Brawley, 1988). The practice of *whanaungatanga*, *manākitanga*, and *kōtahitanga* within *marae* suggest that the group cohesion developed within these settings may provide the motivation for individuals to participate in *marae*-based physical activity programs (Te Puni Kokiri, 1995b). Much akin to the ‘need to belong’ which is a source of human motivation (Baumeister & Leary, 1995). In this respect the *marae* offers a suitable setting where group cohesion can be maximised, and therefore motivation to attend physical activities at *marae* is developed.

Research has also shown a preference for group type physical activities. Booth, Bauman, Owen and Gore (1997) found that more than 40% of participants preferred exercising in groups rather than alone, and moreover, early studies by Stephens and Craig (1990) reported a figure of 65% for this preference. Thompson, Allen, Cunningham-

Sabo, Yazzie, Curtis, and Davis (2002) found that American Indian women desired a community emphasis on physical activity. It is reasonable to suggest that this desire and these figures could be equally high for Māori considering the emphasis on *whanaungatanga* and disapproval towards independence (e.g., the *taha tīnana* cornerstone). For example, Hurley (2004) found that a safe and comfortable environment with *whānau* and friends (i.e. that found on *marae*) was the preferred setting for physical activity among Māori, and was also seen to encourage exercise. Furthermore, the preference of many Māori to participate in team sports (Thompson, Rewi, & Wrathall, 2000) suggests that social support and team/group cohesion maybe a motivating factor to conduct physical activity. In this sense, physical activity and motivation may increase in a *marae* setting as a result of this social support.

The preference for many Māori to partake in group type physical activity (Hurley, 2004) and sports (Thompson, Rewi, & Wrathall, 2000) shows that Māori are more likely to undertake physical activity when there is involvement with *whānau* and *hapu* (Rewi, 1992; Te Puni Kokiri, 1995b). To this extent, *marae*-based programs offer this environment. Furthermore, Wankel (1993) found that social motives (such as social interaction) for participation in physical activity settings contributed to enjoyment, and therefore attendance and adherence. With the strong emphasis on *whanaungatanga* from a Māori world-view, this motive for social interaction with *whānau* (Te Puni Kokiri, 1995b) can provide another means for participation in physical activity. This may explain the *kōtahitanga* and *whanaungatanga* that was evident in the NPEC team. Indeed, the NPEC rugby team provides an example of the benefits (such as unity and togetherness)

that can be gained from utilising *marae* as a forum to promote relatedness and create a *whānau* atmosphere.

In relation to physical activity, relatedness has been shown to facilitate positive experiences of intrinsic motivation (Cadorette, Blanchard, & Vallerand, 1996, cited in Vallerand & Fortier, 1998). Research by Cadorette, Blanchard, & Vallerand (1996) revealed that the more individuals perceived themselves to be related to others in a weight-loss exercise program (as well as having positive perceptions of competence and autonomy), the more they reported being intrinsically motivated toward the programme. In essence, (a) interpersonal relationships with relatives of the extended family and extended tribe (*whanaungatanga*), (b) similar world-views (i.e. a Māori world-view), (c) maintaining the upkeep of *marae* and *mana* of the *marae* through fulfilling the required roles, (d) practicing the concepts of *aroha* and *manākitanga* (caring and sharing), and (e) the notion of all present as descendants of one ancestor (*whakapapa*), all create a sense of belonging, togetherness and relatedness much akin to those behaviours suggested by Carron (1988), Kowal and Fortier (2000), Landry and Solmon (2002), and Ryan and Deci (2001). Likewise, aspects of all these notions are evident within the various *marae*-based physical activity programs (Te Puni Kokiri, 1995b). Therefore, the *marae* can serve as a forum where intrinsic motivation for exercise can be influenced (so long as competence and autonomy are present) to promote a sense of belonging and relatedness, mainly through *whānau*, *whanaungatanga* and *whakapapa* links.

Experiencing a sense of competence and/or effectance is another psychological ‘need’ that can be promoted on *marae*. From a contemporary perspective (and to a certain degree, traditional sense), the competence related activities and behaviours suggested by

White (1959) (e.g., visual exploration and attention/perception) can be identified in health and physical activity related activities conducted on *marae*. For example, (a) there is visual exploration during hunting, eeling, and *kaimoana* (seafood) gathering, (b) attention and perception is required during *mirimiri* and *romiromi* (traditional forms of massage and manipulation), (c) Māori language and thinking is integral to the *marae* (Metge, 1995; Karetu, 1992), and (d) exploring novel objects and places occurs for new comers to *marae* and physical activities. All these examples provide the opportunity for the individual to produce effective changes in the environment, and as further suggested by White (1959), can relate to a positive sense of competence. Furthermore, Deci (1975) suggested that the need for competence leads people to participate and conquer challenging circumstances, and that competence acquisition occurs through the interaction with challenging stimuli. Gathering seafood can be challenging depending on the type and amount to be collected, and *mirimiri* or *romiromi* can also be challenging depending on the situation and the subject. So there is variation in regards to the degree of difficulty of these activities. Therefore participation in these such activities can be considered to be motivated by competence, ‘the desire to engage challenges and exercise and expand skills’ (Ryan, Frederick, Lepes, Rubio, & Sheldon, 1997, p. 336).

To help individuals cope with these situations, competence (and effectance motivation) can be attained by referring to the skills and attributes of ancestors - the genetic make-up that is handed down through *whakapapa*. Accordingly, on *marae* one can extend their capabilities (i.e. those qualities inherited through *whakapapa*, such as personal traits and behaviour, and certain skills), as well as exercise those capabilities that exist (such as one’s existing ability at *whaikōrero*, *karakia*, *waiata*, *kapahaka*, *mau*

*rākau, manākitanga, whanaungatanga*), in order to seek and conquer optimal challenges. White (1959) supports this stance by implying that there is an inherent satisfaction in exercising and extending one's capabilities. Therefore competence is increased as these examples can be optimally challenging depending on the individual and the activity.

Hurley (2004) found that gathering *kai* (food) was a preferred form of physical activity for Māori. It provided an opportunity to reaffirm cultural practices and participants felt 'really good' (Hurley, 2004, p. 69) about participating in such activities. Furthermore, 'these activities provided them with the opportunity to reaffirm the importance of the activity for themselves' (Hurley, 2004, p. 69) (i.e. self-determining), therefore enhancing their competence. Competence in this sense arises from self-administered positive feedback (e.g., enjoyment) (Deci & Ryan, 1985), which has been shown by earlier studies with college students (Russell, Studstill, & Grant, 1979; cited in Deci & Ryan, 1985) and children with puzzles (Deci, 1971), to then enhance intrinsic motivation. This sense of enjoyment is also regarded as an acceptable indicator of intrinsic motivation (Markland, 1999).

Sonstroem and Morgan's (1989) exercise and self-esteem model states that involvement in exercise may positively influence one's self-efficacy (the belief that one can successfully carry out a specific behaviour to produce a desired outcome), which in turn, can enhance perceptions of physical competence. Consequently, self-efficacy directly influences perceptions of physical competence. Accordingly, it can be suggested that by participating in the (enjoyable) activities mentioned by Hurley (2004), that self-efficacy can be promoted, therefore enhancing physical competence. Finally, as well as providing positive perceptions of competence, the activity of gathering *kai* (such as

diving and hunting) also provides a sense of autonomy as Māori choose to do so out of sheer want and need to reaffirm cultural practices (Hurley, 2004).

Research by Ryan et al (1997); found that competence and enjoyment motives were predictive of greater adherence and attendance for Tae Kwon Do and Aerobics participants. There is reason to believe that this ‘feel good’ factor (i.e. enjoyment) can also be evident within a variety of the *marae* based physical activity programs (such as *mau rākau*, *wānanga*, tribal sport days, *kapahaka*, maraerobics, and seafood gathering) as they all develop, maintain and reaffirm cultural practices. ‘The need for competence provides the energy for this learning’ (Deci & Ryan, 1985, p. 27), and especially so for Māori who are seeking to get in touch with their *Māoritanga*.

Various studies (Carroll & Loumidis, 2001; Hurley, 2004; Pan American Health Organisation, 2001) have also shown that one barrier to undertake physical activity is that individuals do not believe they can, or that they are not competent to do so. The *marae* offers a solution through the *whanaungatanga* and *whānau* settings. If individuals can see fellow *whānau* members successfully being physically active (through one of the many *marae*-based activities/programs), then their own perceptions of competence may be enhanced as a result. This postulation can be explained by Bandura’s (1977, 1997) Self-efficacy Theory, which assumes that self-efficacy is one’s belief in their ability to perform a particular behaviour. This relates to competence through the belief that one can efficaciously interact with the environment. Moreover, self-efficacy beliefs are hypothesized ‘to influence the challenges people undertake, the effort they expend in an activity, and their perseverance in the face of difficulties’ (Feltz & Payment, 2005, p. 25). These self-efficacy beliefs are formed through various sources of confidence information;

past performance accomplishments, vicarious experiences, verbal persuasion, and physiological states (Bandura, 1977, 1997). For this particular example, vicarious information comes from observing the behaviour and performance of others, noting the consequence of their behaviour, and using this information to ascertain one's own ability. Thus, 'the influence of vicarious information on self-efficacy can be enhanced by factors such as one's perceived similarity to an individual who performs a task successfully' (Feltz & Payment, 2005, p. 25). Accordingly, Feltz and Payment (2005) contend that observing other people similar to themselves (such as *whānau* members) engaging successfully in certain behaviour will enhance one's success beliefs and self-efficacy.

Bandura (1986) extends this notion by indicating that multiple models will enhance the effectiveness of this vicarious efficacy information. In this case, the *whanaungatanga* and *whānau* atmosphere within *marae* provide the opportunity to observe various relations (and thus similar to the individual) undertaking physical activity type behaviours, which in turn can increase one's self-efficacy (i.e. one's belief) to also partake. The development of self-efficacy to enhance participation in physical activity has been studied by Bezjak and Lee (1990), who found that an increase in fitness self-efficacy (the belief in one's physical fitness ability) was significantly related to participation in health related physical fitness activities among college students. Research within sport and physical activity contexts has also shown a significant contribution of self-efficacy beliefs to motivation and performance (Feltz & Lirgg, 2001; McAuley & Mihalko, 1998). Therefore, the *marae* may help individuals to feel competent for physical activity by observing significant others such as *whānau* members, successfully undertaking physical activity.

The final psychological ‘need’ from the SDT (Deci & Ryan, 1985) which the *marae* can somewhat foster or regulate, is autonomy. Autonomy can be defined as a behaviour that is ‘initiated and regulated by events internal to one’s sense of self’ (Deci & Ryan, 1985). Autonomy involves the opportunity to feel free in choosing one’s behaviour (Wilson, Rodgers, Blanchard, & Gessell, 2003). In other words, autonomy is behaviour that emanates from a perceived internal locus of causality (deCharms, 1968). Moreover, perceived autonomy, or self-determination, is an important determinant of intrinsic motivation (Deci & Ryan, 1985; Hassandra, Goudas, & Chroni, 2003). Therefore, ‘activities that are initiated from within the self will be more intrinsically motivating than activities that are initiated by some external force or pressure’ (Goudas, Biddle, & Fox, 1994, p. 454). Autonomy within a *marae* setting must conform to *marae* tradition and protocol, therefore the opportunity to choose is reduced. In this respect however, autonomy from a Māori world-view offers another perspective that can influence the freedom to choose.

As explained in Chapter II, Ryan, Connell, and Deci (1985) suggest that not all activities initiated internally are autonomous, as one must also consider the external, introjected, identified, and integrated regulations of behaviour that are associated with extrinsic motivation. Deci, Vallerand, Pelletier, & Ryan (1991) consider these regulations of behaviour to be located on a continuum of self-determination, with amotivation at one end and intrinsic motivation at the other. The continuum represents an ‘index of perceived autonomy’ (Goudas et al., 1994, p. 454) as perceived by the individual.

This viewpoint of different regulations of extrinsic motivation fits well with the *marae* concept because the *marae* does not necessarily offer individuals a complete sense of

autonomy. The reason for this is because the *marae* is steeped in strong tradition which is upheld in order to sustain the *mana* of the *marae* and *manākilaroha* towards the *manuhiri* (visitors). In this respect, local tradition and *tīkanga* guide the majority of activities that are conducted on *marae*. *Kaumātua* input (i.e. a form of external regulation) also help to maintain the traditional customs. However, once the *mana* of the *marae* has been upheld and the visitors (if present) are cared for, then individuals can do as they wish (within reason). To this extent, individuals are free to choose to participate in physical activity so long as the goals above are achieved. As such, the *marae* can facilitate identified and integrated regulations of behaviour. Identified regulation is characterised by the activity being personally important for a valued outcome (Deci et al., 1991). For example, an individual may willingly continue attending Maraerobics classes because the individual believes it is important for continuing to maintain and establish new relationships/networks, as well as ones *mauri* (life force).

Ryan's (1995) contention supports this idea that the identified regulation type of motivational behaviour fosters persistent behaviour and improves psychological well-being in an exercise context. Wilson, Rodgers, Blanchard, and Gessell's (2003) findings within an exercise program, extend previous research by indicating the association between identified regulation and more frequent exercise behaviour, positive attitudes towards exercise, and overall physical fitness. Additionally, Goudas, Biddle and Fox (1994) suggest that providing a clear rationale or clear reasons for participating in an activity (particularly if it is considered important to the individual) can be more self-determining and shift behavioural regulation towards identification. On *marae*, a particular reason to participate in physical activity could be the opportunity to learn *te reo*

and the associated *tikanga* (customs, concepts) that the various *marae*-based physical activities entail, as well as rekindle or re-affirm relationships. For example, *mau rākau* and *waka ama* contain various *tikanga* Māori (traditional concepts) that are still relevant nowadays, and there is also a strong emphasis on the use of *te reo*. The opportunity to learn these cultural concepts as well as improves one's health can be an attractive motive, especially for those Māori who are seeking to establish and identify with their *Māoritanga*. Accordingly, prison inmates have identified the need for more *tikanga*-based *wānanga* and rehabilitation programmes to help lead a healthier lifestyle (Ministry of Justice, 2003).

Importantly, more autonomous regulations are said to develop within autonomy supportive contexts (Deci & Ryan, 1985), and research within a physical activity setting supports this (Wilson & Rodgers, 2004). Autonomy supportive contexts emphasise the minimisation of controls, understanding other peoples' perspectives, and the provision of choice (Deci & Ryan, 1985). Of more importance to this study however, research has also shown an association between interpersonal contexts and a more autonomous regulation, such as the perceived autonomy support supplied by health care providers in developing autonomous regulations for sustained participation in weight-loss programs (Williams, Grow, Freedman, Ryan, & Deci, 1996). Furthermore, Wilson and Rodgers (2004) found that participants in a physical activity program who perceived autonomy support from friends engaged in more autonomous exercise regulations of behaviour, which in turn was found to be strongly associated with continued exercise. The perceived autonomy support was concerned with the degree to which the participants friends 'understood and accepted one's exercise decisions, understood another person's

perspective, and conveyed confidence in one's ability to exercise' (Wilson & Rodgers, 2004, p. 233).

There is reason to believe that the interpersonal connections and relationships within *marae* functioning can provide autonomy support for physical activity. The *manākitanga* (care, kindness, helpfulness) and *whanaungatanga* (togetherness) concepts that are integral to *marae* function, combined with the various *marae*-based physical activity programs, offers a culturally supportive context for autonomy support in a physical activity setting. To this extent, these two concepts can help guide and underpin the autonomy support suggestions outlined by Wilson and Rodgers (2004) with reference to friends and relatives. The knowledge, guidance, and wisdom of *kaumātua* seems a fitting example to provide autonomy support. The guidance and wisdom provided by *kaumātua* in the more traditional aspects of *marae* should be transferable into an exercise and physical activity domain. Thus autonomy regulations are enhanced when important social agents, such as friends and relatives, are perceived to be supportive of a persons' autonomy (Wilson & Rodgers, 1994). With the help of friends, relatives, and the special role of *kaumātua*, the *marae* is able to provide support for autonomy within a physical activity setting.

Lastly, autonomy in a Māori sense is based on 'Māori control over Māori issues', and forms the basis of *Tino Rangatiratanga* (Māori Sovereignty). It can be argued that maintaining a strong link with *marae* is most favourable for Māori. The Maraerobics programme provides a good example of Māori autonomy, in where both Māori understanding and Māori needs are advanced through Māori input. In this sense, utilising

the *marae* as a culturally relevant setting for (among other *marae* functions) physical activity is a definite pathway towards Māori autonomy.

At this point it is important to note that the positive perceptions of relatedness, competence, and autonomy that the *marae* can foster are largely based on normal *marae* function. However, although physical activity-specific motivation is not directly enhanced in these contexts, the examples provided suggest that these positive perceptions can influence and be evident within *marae*-based physical activity programmes. An example is the relatedness associated with the Te Whare Oranga, and the autonomy of gathering *kai*. The *marae* related concepts/contexts are imperative to all activities on *marae* and therefore *marae*-based physical activity programmes will implicitly incorporate these concepts/contexts and the associated perceptions of relatedness, competence, and autonomy.

In conclusion, the *marae* can function as a suitable setting in where physical activity and health can be promoted and encouraged. The variety of Māori and *marae* centred health, exercise, and physical activities that exist support the above claim. The *whānau* and *whanaungatanga* atmosphere that is created during these events seems to be the overarching theme, and may well be the reason for the success of these events. Indeed, intrinsic motivation, and cognitive development are maximised within social contexts that provide people the opportunity to satisfy the three basic needs of relatedness, competence, and autonomy (Deci & Ryan, 1985). Physical activities located on *marae* can help to fulfil these psychological needs, and help improve Māori health and well-being.

## CHAPTER VI: TAHA TĪNANA

‘Tama tu, tama ora – tama noho, tama mate’

*‘He who stands lives –he who sleeps dies’*

### *The Psychology of Physical Activity and Mau rākau*

The purpose of this chapter is to demonstrate how the concept of *mau rākau* can positively influence Māori to become more physically active. The first portion of this chapter highlights how *mau rākau* promotes physical activity. Following from that, reference will be made to the psychology of physical activity theory to explain ‘how’ and ‘why’ *mau rākau* can motivate participation in physical activity.

*Mau rākau* provides an obvious example of physical activity. Using traditional knowledge and concepts, *mau rākau* provides a culturally relevant opportunity to participate in physical activity through its emphasis on the movements pertaining to the use of *taiaha*. Exhibitions of this form can be seen at various occasions on *marae* (such as in *wero* [formal challenge]), during *kapahaka* performances, as well as at certain organisations and institutions. For example, the Community Probation Service and Mahi Tahi Trust use *mau rākau wānanga* (live-ins) to help inmates and offenders with their rehabilitation (Ministry of Justice, 2003; Community Probation Service, 2002). As part of the *wānanga*, participants are taught basic *reo* (language), *taiaha* movements, *tīkanga*, and *marae* protocol. Consequently, participants held positive perceptions of the *wānanga* as they felt a sense of self-identity and belonging to a wider community (Ministry of Justice, 2003). Moreover, the use of *mau rākau* as a form of warm-up for sport has been proposed (W. Raihania, personal communication, July 30, 2003), and a handful of sports

teams have actually done so (J. Nepe-Apatu, personal communication, April 23, 2004). *Mau rākau* has also been recognised by the New Zealand Qualifications Authority (2005) as a performing art, emphasising its form of physical activity.

The fact that *mau rākau* utilises various traditional *tīkanga* (such as myths and legends, *haka*, and *tapu*) and the use of *te reo*, offers an attractive package for prospective participants. Combined with the ‘health’ benefits associated with the physical activity movements, *mau rākau* can be a suitable activity for both those seeking to re-establish their cultural links and practices, and those seeking to re-affirm their cultural links and practices. Because of its emphasis on physical movement and its subsequent categorisation under the *taha tīnana* cornerstone, *mau rākau* is able to offer another vehicle to promote physical activity.

The psychological ‘need’ of relatedness that is proposed by the SDT (Deci & Ryan, 1985), can be reflected in the practice of *mau rākau*. The intensive learning and living situation of *mau rākau wānanga* fosters a social context of *whanaungatanga* (togetherness, interpersonal connections, group dynamics) which has similarities to the close and secure relationships associated with a sense of relatedness. When learning *mau rākau* at *wānanga*, participants are taught in groups depending on the grade they are training for. Those wanting to attain *Pou Tahī* (1<sup>st</sup> grading) will learn and train together, same for those striving to attain *Pou Rua* (2<sup>nd</sup> grading), and so on up until *Pou Waru* (level 8, the highest level of grading). Learning and training in this situation can foster *whanaungatanga* where participants develop a sense of *mana* (in this case personal prestige), self-esteem, pride, empowerment, and belonging. For example, the *mau rākau wānanga* that was run by the Community Probation Service found that participants ‘get a

feeling of belonging, because they have a deep spiritual longing for a place where they can feel comfortable' (2002, p. 5). The *mau rākau wānanga* provides the participants with this 'comfortable' setting, and the sense of *whanaungatanga* that was developed between the participants provided these individuals with a sense of belonging and relatedness to the setting and context.

With the preference for Māori to undertake group type physical activity (Hurley, 2004) and participate in team sports (Thompson, Rewi, & Wrathall, 2000), it can be suggested that *mau rākau* is able to cater for this preference through its development of *whanaungatanga*. In fact, personal experience and *kōrerorero* (conversations, dialogue) with *whānau* and friends has found a consistent theme of participating in physical activity to be with *whānau* and maintain/develop relationships within social settings. Evident within a Māori world-view, the concept of *whanaungatanga* epitomises this particular motive. In this sense, a motive for participation in *mau rākau* may be the desire for social interaction, and therefore provide the motivation for one to participate in *mau rākau*. Wankel's (1993) research review found that social motives (such as social interaction) for participation in physical activity settings contributed to a sense of enjoyment, and therefore attendance and adherence. The possibility that *mau rākau* can promote relatedness or *whanaungatanga*, may add to this social motive and therefore one's intention to exercise.

In the context of *mau rākau*, *mana* (power, prestige, authority) can be considered to derive from the personal achievement of increasing one's breadth of Māori *tīkanga* and knowledge, also referred to as *mana tangata* (personal power/prestige). With reference to the traditional myth of obtaining knowledge for mankind, *Tāne-nui-a-rangi* (the

progenitor of mankind) ascended to the twelve heavens in pursuit of this. There he obtained the three baskets of knowledge. These being *te kete tuatea* (knowledge of ritual, memory and prayer), *te kete tuauri* (knowledge of harm and evil), and *te kete aronui* (knowledge to help mankind). Acquiring *mau rākau* knowledge and skills can fulfil one's own personal *kete aronui* because he/she is obtaining valuable knowledge that has been passed down by ancestors, and thus, ensuring cultural survival. In this case, *mana tīpuna* (*mana* derived from ancestors) is also vested. Self-esteem can also be associated with this form of *mana*. Defined simply as 'how one regards or feels about oneself' (Powell, 2004, p.78), self-esteem can also be referred to as self-worth and self-respect (Kang, 2004). Fox (2000) states that the determinants of one's sense of self pertain to their primary culture and values. Accordingly, self-esteem can be placed at the top of a hierarchy which is underpinned by self-perceptions that are important within one's life domains (such as physical, emotional, social, and academic) (Wilson & Rodgers, 2002) Thus, the *mana* acquired from *mau rākau* can enhance one's self-esteem as the individual is broadening their knowledge and ensuring the survival of *tīkanga* Māori, therefore, regarding one's self with higher self-esteem. This is especially so for those Māori seeking to reaffirm their *Māoritanga*. Moreover, the sense of pride and empowerment mentioned above occurs as a result of the *mana tangata* and *mana tīpuna* that is attained with reaffirming this cultural practice (Key Informant B, 2005).

From a motivational perspective, self-esteem is considered a key construct in the decision-making processes for involvement in physical activity, sport, and other health related activities (Biddle, 1997). For example, in a study aimed at examining the moderating roles of self-esteem in decision making, Kang (2004) found that self-esteem

had a moderating effect on one's decision to undertake physical activity. More precisely, Kang (2004) found that for people with high self-esteem, their perceptions of their congruity to a 'typical exerciser' influenced their intention to join a health program. Whereas for those people who had lower perceptions of self-esteem, attitudes (or the summation of their beliefs) towards the health program affected their intentions to join.

For those with high perceptions of self-esteem, the differences between a 'typical exerciser' and one's self, in a *mau rākau* sense is not considerable. This is because most oftenly, *whānau* members can be seen participating so there is an immediate association or commonality. Furthermore, people of many shapes and sizes participate, and the Ngāti Kahungunu style allows women participation as well. Therefore, a 'typical exerciser' from a *mau rākau* sense encompasses everyone who wishes to participate. Moreover, the majority of *wānanga* and weekly practices conduct a public performance at the completion of the *wānanga* or grading component to display what has been learnt. This provides an opportunity for prospective participants to view a 'typical exerciser' within a *mau rākau* context.

For those with lower perceptions of self-esteem, the 'attitudes' in this study were based on the perceptions of the health program. Attitudes were defined as 'inferred states of an organism...[which are] predispositions to respond' (Osgood, Suci, and Tannenbaum, 1978, pg. 189) to various actions, behaviours and occurrences. Accordingly, there were 10 semantic differentials used to define attitude, such as worthless-valuable, uncomfortable-comfortable, unattractive-attractive, and unenjoyable-enjoyable. Thus, for *mau rākau* to positively affect those with low self-esteem, the majority of the 10 differentials must be considered from the positive perspective. To

foster a positive attitude, *mau rākau* can draw on its ability to promote and provide *te reo* and *tīkanga* Māori, and therefore there is value and usefulness in establishing and reaffirming ancestral practices. In essence, *Tino Rangatiratanga* (Māori self-determination) is advanced. Additionally, by drawing on this point of establishing and reaffirming ancestral practices, *mau rākau* can foster the perceptions of the situation as being ‘appealing’ and ‘attractive’. This is especially significant for those Māori seeking to uphold or establish their sense of *Māoritanga*. To foster the perceptions of ‘enjoyable’ and ‘comfortable’, *mau rākau* can draw on the *whanaungatanga* atmosphere that is created at *wānanga*. Such an atmosphere fosters positive social interaction and therefore participants are more comfortable and enjoy the activities. Finally, from a ‘self-esteem’ perspective, the *mau rākau* setting provides a suitable context to positively influence the determinants to undertake physical activity.

In light of all this, as the participants pursue the same goal of successfully attaining their grading, they undertake a journey of spirituality (through the associated ancestral concepts) and camaraderie, resulting in *whanaungatanga*. Moreover, the motivation to feel connected with others within the *rōpu* (group) is similar to those motives from traditional Māori society. For example, the camaraderie that is exhibited is similar to the social structures of traditional times, such as the *whānau*, *hapu*, and *iwi* kinship structure, as well as the group dynamics and cohesion that was evident in the war parties and their preparation. Camaraderie and social support among exercisers has been found to positively influence continued attendance of an exercise program (Wankel, Yardley and Graham, 1985). In-class buddy support, general class support, and leader support were considered the most important aspects for continuing participation within the programme.

The *whanaungatanga* that can occur in *mau rākau wānanga* (as a result of the spiritual journey and camaraderie) may also provide these types of social support.

Social support within *mau rākau* settings can also be fostered through one on one relationships. As such, relatedness is also bidirectional in that one not only seeks to give or care for others, but such actions are also expected to be returned in favour (Landry & Solmon, 2002). The concept of *tuakana-tēina* (reciprocal relationships) which is evident within *mau rākau* can correspond to this bidirectional relationship. In a *mau rākau* setting, *tuakana-tēina* relationships occur in a sense that less experienced *mau rākau* participants learn from more experienced exponents, and in turn the experienced members learn other inherent benefits such as how to care and share, how to be tolerant, as well as how to successfully transmit traditional/ancestral knowledge. Personally, I have experienced both sides of the relationship. Whilst being a younger student I had more experienced members teach me the more intricate movements and certain skills or ‘tricks’ that helped them progress further and quicker. Moreover, as a result of being a *tuakana* figure I learnt how to improve my teaching skills, my ability to care and share, and I also felt a sense of purpose as I was transmitting traditional/ancestral knowledge. Overall, both relationships induced a feeling of closeness and *whanaungatanga* between those present. Again, the research by Wankel, Yardley, and Graham (1985) found that in-class buddy support (similar to a *tuakana-tēina* relationship) contributed to regular attendance in an exercise programme. Participants in this study found that the structured social support intervention (consisting of class, buddy, leader and home support elements) helped facilitate regular attendance at the aerobics dance class. There is reason

to suggest that the *tuakana-tēina* concept that is evident within *mau rākau* can help provide this social support, and therefore maintain attendance at *wānanga* and practices.

As well as a sense of relatedness between those participating in *mau rākau*, there is also a close bond between the individual and his/her *taiaha*. This relationship stems back to the traditional myth that personified the *taiaha* (Key Informant, B). Furthermore, many *taiaha* exponents refer to their *rakau* (slang for your own personal *taiaha*, also meaning tree or stick) as a personal being, sometimes attributing it to an ancestor. The personification of *taiaha* also then requires the proper practice of *manāki* (care), *aroha* (love and affection), *tapu* (sacredness) and *noa* (free from restriction), the common concepts associated with *manāki tangata* (caring for the people). At the age of eight, I was very fortunate to receive my very own *taiaha* from a relation who was a master carver. Throughout my life it has been a very important and prized possession that I have cared for and ensured that its *tapu* is not trampled on. This relationship with my *rakau* has extra importance and significance as the *taiaha* was carved by a relation, therefore, a direct *whakapapa* link is also present. This sense of closeness and affection that I felt with my *rakau* fulfilled my ‘need’ for relatedness to the activity and the setting, and therefore contributed to me being intrinsically motivated towards *mau rākau* as I had a personal and spiritual link to the activity. Moreover, there are many other *mau rākau* participants who also have a close personal relationship with their *taiaha* to the extent that it’s an extension of their own *mana* (prestige), *mauri* (life force), and *whakapapa* (genealogy).

In conclusion, the presence of *whanaungatanga*, the *tuakana-tēina* relationships, and an affinity with one’s *taiaha*, can all provide the psychological ‘need’ of relatedness.

These concepts help provide special group dynamics such as social support and camaraderie, which help promote relatedness. In conjunction with a sense of competence and autonomy, these concepts can help foster intrinsic motivation for *mau rākau*.

The need for effectance (or competence) can also be reflected and promoted through *mau rākau*. Loosely defined as the motivation to function effectively and/or competently within a group (Deci & Ryan, 1994), effectance (competence) in this sense can be fostered through the group dynamics of *mau rākau* that are mentioned above. More specifically, *mau rākau* provides a more conducive setting for one to function within. First and foremost, functioning and fulfilling the *tuakana-tēina* roles effectively and competently is integral to *mau rākau* training. With the strong emphasis of *mau rākau* on *tīkanga* Māori and *ngā tāonga tuku iho* (treasures handed down by ancestors) it is important that the knowledge is transferred correctly and effectively. Suffice to say, the *tuakana-tēina* relationship provides the most operative and comfortable means to do so. Correct and proper instructions by the mentor on one hand, and attention and focus by the mentee on the other hand, are the basic pre-requisites. As a result, 1) the *whanaungatanga* relationship forms, 2) group members begin to move in sync as the movements and footwork are executed correctly, and 3) each individual's personal *mana* and *mauri* (life force, vitality), as well as the groups *mana* all emanate a sense of *ihi* (vital force or personal magnetism) which can further promote *whanaungatanga* and camaraderie. The *tuakana-tēina* relationship that is associated with *mau rākau* can provide a setting which is more conducive for one to successfully function.

Competence can be also facilitated through the incremental *pou* gradings of *mau rākau*. This incremental grading provides optimal challenge for participants as they

progress from the simple footwork, blocks, strikes and *āhai* (on-guard movements, postures, and stances) of *Pou tahi*, to the one on eight sparring and the solo wilderness trek of *Pou waru*. This eight stage grading process means that participants progress at a suitable pace whilst still being challenged. Such a context, can promote the intrinsic drive which seeks out challenging situations in order to test one's competencies (Wankel, 1993). Deci (1975) contends that attempting to conquer and participate in challenging circumstances helps facilitate competence. The incremental challenges of *pou* grading can present this challenge, and therefore provide and promote the 'need' for competence.

Research has found that many people cite their incompetence and lack of belief in their ability as barriers to undertake physical activity (Carroll & Loumidis, 2001; Hurley, 2004; Pan American Health Organisation, 2001). The concept of *mau rākau* can alleviate these barriers, through the vicarious experiences outlined in Bandura's (1977, 1997) Self-efficacy Theory. Briefly, self-efficacy (one's belief in their ability to perform a particular behaviour) can be formed through among other things, vicarious experiences (Bandura, 1977; 1997). Vicarious experiences are characterised by observing the performance and behaviour of others, noting the perceived similarities, and therefore establish a perception of one's own ability.

*Mau rākau* is able to offer vicarious experiences through the *wānanga* concept, as well as the various exhibitions that occur. In terms of *wānanga*, a number of people can be present, especially when they are conducted on *marae*. As well as having cooks prepare meals, the *whānau* atmosphere of *marae* means that there various other *whānau* members present, such as the participants spouses, children and so on. Whether training is conducted on the *marae ātea* (area in front of the meeting house) or within the

*wharekai* (dining hall), there are often people and relatives on the perimeter of these spaces observing. Furthermore, at the conclusion of *wānanga*, the participants display what they have learned to *whānau* and the public. This process is an important aspect of *mau rākau wānanga* as it provides the opportunity for the participants to exhibit the skills they learnt over the live-in to *whānau* members, and consequently, self-identity (Ministry of Justice, 2003), self-esteem, and self-confidence is enhanced. This provides another opportunity for vicarious experiences. Both instances show *whānau* members successfully conducting culturally related physical activity, which in turn can positively influence one's self-efficacy perceptions (Bandura, 1977). Bejjani and Lee (1990) found that an increase in self-efficacy fitness (the belief in one's physical fitness ability) was positively related to participation in health related fitness activities among college students. Similarly, McAuley (1992) found that self-efficacy played a significant role in determining exercise participation among middle-aged adults. Results showed that both general self-efficacy (perceptions of physical ability) and exercise self-efficacy (perceptions of capability to overcome barriers to exercise) had positive effects on frequency (attendance) at 3 and 5 months. Accordingly, Bandura (1986) proposed that high levels of self-efficacy denotes competence and thereby facilitates intrinsic motivation. In conclusion, the *whanaungatanga* atmosphere, and the opportunity to exhibit *mau rākau* performances, contributes to enhancing one's self-efficacy, and consequently, a sense of competence is fostered.

Finally, research in physical activity settings (Wilson & Rodgers, 2004) has supported the contention of Deci and Ryan (1985) that more autonomous regulation (for exercise) are developed within autonomy supportive contexts. Such a context emphasises the

minimisation of controls, understanding other peoples' perspectives, and the provision of choice (Deci & Ryan, 1985). Wilson and Rodgers (2004) found that participants in a physical activity program who perceived autonomy support from friends, were more strongly associated with continued participation. The *tuakana-tēina* relationships that are provided for in *mau rākau* (Key Informant B, 2006) can help promote autonomy support within a physical activity setting. This reciprocal relationship emphasises the understanding of each other's perspectives, it considers the strengths and weaknesses of each member, and it also provides alternatives and choice in order to achieve the desired outcome. In this case, the desired outcome is the attainment and proper practice of *mau rākau* knowledge. The *whanaungatanga* concept within *mau rākau* also adds to this autonomy support. In particular, personal experience and dialogue with family and friends, has found that the group dynamics and interpersonal connections with kin/friends, as well as the traditional Māori concept of *manāki tangata* (caring for people), provide a supportive context for physical activity.

In conclusion, *mau rākau* promotes physical activity through its emphasis on physical movement. The opportunity to enhance self-efficacy, and the presence of *whanaungatanga*, and *tuakana-tēina* relationships, further enhances this promotion of physical activity by also facilitating somewhat, the psychological 'needs' of the SDT (Deci & Ryan, 1985). Thus, *mau rākau* can promote relatedness, competence, and autonomy in an autonomy supportive sense. In addition, utilising *mau rākau* to promote physical activity can also maintain and reaffirm many of the associated ancestral practices such as *whakapapa*, *haka*, *karakia*, and *te reo*, as well as promote *Tino Rangatiratanga*.

## CHAPTER VII: TAHA WAIRUA

‘Te toto o te tangata, he kai; te oranga o te tangata, he whenua’

*‘Food supplies the blood of human beings,  
but the welfare of humans is based on land’*

### *The Psychology of Physical Activity and Tūrangawaewae*

The purpose of this chapter is to illustrate how the concept of *tūrangawaewae* can promote spiritual experiences, and when combined with physical activity, can positively influence Māori to become more physically active. Following a discussion on some specific physical activity initiatives within *tūrangawaewae*, the next section of the chapter explains how spiritual experiences can be reflected and promoted within *tūrangawaewae*. Finally, reference will be made to the psychology of physical activity to explain ‘why’ and ‘how’ *tūrangawaewae* can motivate and promote physical activity.

There are numerous opportunities to partake in physical activity on one’s *tūrangawaewae*. In essence, a *tūrangawaewae* offers a similar setting for physical activity as does any other environmental and/or urban setting. An individual can equally participate in physical activity both in Auckland city (i.e. the *tūrangawaewae* of Ngāti Whatua descendants), and/or deep in the Urewera forest (which is the *tūrangawaewae* of Tūhoe descendants). The physical activity setting does not necessarily have to be in a remote setting in the country, it all depends on where one’s *tūrangawaewae* is geographically situated as a result of their *whakapapa* (genealogy).

There have been a number of physical activity related programmes constructed by Māori that utilise the tribal area as the preferred setting. These include *waka ama*

(outrigger canoeing), *heke ngaru* (surfing), tai-chi, Maraerobics (Māori form of aerobics), *whānau* sport days (to raise awareness of the health benefits etc.), *mirimiri* (traditional massage), *Tītītōrea* and *Tī-rakau* (traditional stick games), *mau rākau wānanga* (traditional weaponry camps), *kapahaka* (traditional performing arts), river rafting, *Pā Wars* (sport, intellectual, and cultural competitions between the different sub-tribes of each tribe), *hīkoi* (walks), eeling, and gathering seafood and hunting. So by participating in these activities, an individual is thus physically active on their *tūrangawaewae*. Moreover, *hīkoi* programmes have proven successful in increasing physical activity among Māori (Wehipeihana & Burr, 2001).

The Hinengakau Development Trust (located in Taumarunui and the Whanganui River) facilitate a number of cultural, social, economic and environmental initiatives upon their *tūrangawaewae*. For example, there is a river tour by *waka* (canoe), in which participants ‘hear the history, live the stories, visit the village sites and revel in the majesty of the Whanganui river’ (Te Puni Kokiri, 2005a, p.13) all the while paddling a six-man *waka*. This organisation is promoting and conducting physical activities within the *tūrangawaewae* of the Hinengakau descendants. In doing so, they are also facilitating the re-settlement of their people back on the river (Te Puni Kokiri, 2005a).

Another example of physical activity being conducted and promoted on *tūrangawaewae* is the ‘Go Bush’ adventure tour business, which is run by three brothers on their family owned land situated between Turangi and Taumarunui. The brothers use the 3700-acre wilderness property to conduct horse treks, canoeing expeditions, guided or unguided campouts, goat and deer hunting, as well as wilderness fly fishing (Te Puni Kokiri, 2004). ‘Having hunted on the block for their whole lives’ (Te Puni Kokiri, 2004,

p. 14), the brothers now want to extend their activities and show their treasures to others. Although both these particular businesses target tourists, there is still scope for Māori participation. In this sense, descendants of these regions who live afar are able to participate and learn about the area when returning back to their *tūrangawaewae*.

Hence, these specific examples highlight the promotion of physical activity within a wilderness/outdoors setting, and more specifically, *tūrangawaewae*. Moreover, the various physical activity programmes facilitated by *iwi* health organisations (e.g., Te Papa Takaro o Te Arawa, Ngāti Porou Festival, Maraerobics etc.) also highlight the promotion of other physical activities within one's *tūrangawaewae*. From a Māori world-view, such a setting may facilitate an interest for Māori to participate in physical activity, as these examples highlight *tūrangawaewae* as a culturally relevant physical activity setting.

The presence of *taha wairua* within the Whare Tapa Whā model suggests that spirituality is strongly present within a Māori world-view. This can be attributed to religious beliefs, which can stem back to the ease of integration with the missionaries and the subsequent formation of new religions such as Ratana and Ringatu. However, a Māori world-view also involves spirituality through non-religious means such as the acknowledgment of *mauri* (life force, vitality) within the trees, the mountains, the sea, and other such features. With this in mind, it seems logical to utilise this gravitation towards spiritual aspects to foster participation in physical activity. In defining 'spirituality', there are many possible definitions and expressions (Anderson-Hanley, 1997). However, Henderson (1993) suggests that spirituality involves:

...a sense of mystery about the world and the things in the world that exceed our analysis or understanding. The common denominators of a sense of spirituality include a sense of purpose in life, a belief in a connectedness to people and things, and a belief in a power greater than oneself. (p. 24)

In other words, spirituality involves a connectedness with the self, with others, with the environment, and with higher beings.

Considering the spiritual links that are inherent in *tūrangawaewae*, there is reason to suggest that there maybe a relationship between this physical activity setting and spirituality. There have been a number of studies conducted that have explored the relationship between nature-based leisure/physical activity experiences and spirituality (Fox, 1997; Fredrickson & Anderson, 1999; Riley & Hendee, 1999; Stringer & McAvoy, 1992; Sweatman & Heintzman, 2004), however, there is little mention of the ability to promote physical activity. Stringer and McAvoy (1992) conducted a study to determine peoples' definitions of their spirituality experiences within the wilderness, and the activities that can foster these experiences. Participants reported a number of factors that defined their spiritual experiences. These included a heightened level of awareness, times of prayer, assisting participants, watching other participants work together, as well as intense feelings and emotion following interactions with other participants and the environment. Within the context of physical activity, these responses can be promoted and enhanced whilst present at one's *tūrangawaewae*. The concept of *whanaungatanga* (group dynamics, interpersonal connections) that is integral to a Māori world-view and strongly present within various Māori activities (such as sport, exercise and physical activity groups, as well as sports/health promotion days), provides a setting where close

and positive relationships can be fostered through *whakapapa* (genealogy) links (Key Informant C, 2006), as well as the possible presence of a common Māori world-view. Such culturally relevant settings can promote and enhance the relationships between participants during these wilderness/outdoor experiences, and therefore provide spiritual experiences similar to those mentioned in Stringer and McAvoy (1992).

The spiritual connection with the environment that is also integral to a Māori world-view (such as the designation of environmental features based on one's *whakapapa*) can enhance and promote a heightened awareness, and intense feelings and emotions when interacting with the environment. The spiritual connection with ancestors (Key Informant C, 2006) and the belief in the *mauri* (life force) of certain land features (Patterson, 1992) can promote emotional connections with the setting and environment. In this case, *tūrangawaewae* can promote culturally relevant spiritual experiences as participants can connect with their ancestors and the special environmental features that distinguish one's *whakapapa*.

One of the specific activities that was mentioned (among typical activities such as swimming and rock climbing) to foster these spiritual experiences was an earth awareness exercise (Stringer & McAvoy, 1992). This exercise corresponds with the practice of *kaitiakitanga* (guardianship, stewardship) that is integral to a Māori world-view. *Kaitiakitanga* is the role of guardianship of the land and its resources. To help achieve this, advocacy and education on the delicate nature and resource balance is promoted through community initiatives and activities such as *mahinga kai* (traditional gathering and preservation of food sources) and *rāhui* (reserves). Indeed, 'a Māori world view shows how we can care for the land rather than harm it, but still lead a good life- in

which the welfare of one is the welfare of all' (Patterson, 1999, p. 44). Accordingly, this specific practice is regularly practiced by *hapu* and *iwi* throughout Aotearoa. When applied into a physical activity setting (such as the physical activities and reasons involved in *mahinga kai* and *rāhui*), this practice can enhance and promote the spiritual experiences cited by Stringer and McAvoy (1992).

Similarly, because the participants reported an awareness of the world around them as a major component of their spiritual experience, Stringer and McAvoy (1992) recommend telling participants 'about the history of the area, creating connections between their experiences and the human and nonhuman past of an area' (p. 19). Heintzman (2000) also identified this component as one of the eleven themes from his research on the links between leisure and spirituality. Accordingly, *hapu* and *iwi* throughout Aotearoa have extensive explanations and stories pertaining to the various environmental features. Thus, these culturally relevant educational activities can foster spiritual experiences, and when incorporated with physical activities (such as trekking/tramping, gathering seafood, eeling, hunting, *waka ama*, and *mau rākau wānanga* etc.), can support *tūrangawaewae* as a valuable setting to promote spirituality and physical activity.

The various spiritual experiences mentioned by Stringer and McAvoy (1992) offer positive benefits which can promote physical activity. For example, the positive feelings of heightened awareness, intense feelings and emotions, human interconnectedness, and 'being one with the land' outline the benefits that can be attained through physical activity in nature-based settings. Similarly, *tūrangawaewae* and its associated concepts of *whanaungatanga*, *whakapapa*, and the special spiritual link with the land and ancestors,

provide culturally relevant spiritual experiences which can be attained in conjunction with physical activity. Thus, these spiritual experiences provide an insight into some of the determinants and benefits associated with spiritual experiences in nature-based settings. More importantly however, *tūrangawaewae* can replicate these experiences and therefore provide culturally relevant spiritual experiences. The positive feelings associated with these spiritual experiences may promote physical activity in nature-based settings, and may then also serve as a motive for participation.

The spiritual experiences mentioned by Stringer and McAvoy (1992) (such as heightened levels of awareness, and the intense feelings and emotions associated when interacting with the environment) seem to show similarities with the state of flow that is proposed by Csikszentmihalyi (1975). Experiencing flow is characterised by being totally involved in the situation or an activity, ‘where the mind and body work together effortlessly’ (Jackson & Csikszentmihalyi, 1999, p. 5). Such an experience occurs when an individual perceives a balance between the challenges associated with the situation and their capability to accomplish or meet the demands. Moreover, Csikszentmihalyi (1975) emphasises the presence of feelings of enjoyment (a characteristic of intrinsic motivation) as an important characteristic of flow. In other words, experiences of enjoyment, pleasure, and happiness are manifestations of flow (Csikszentmihalyi & Csikszentmihalyi, 1988). Csikszentmihalyi (1990, 1993) identified a number of other common characteristics that can feature during experiences of flow. These include a challenge-skill balance, merging of action and awareness, clear goals, unambiguous feedback, concentration on the task at hand, sense of control, loss of self-consciousness, time transformation, transcendence of ego boundaries and merging with the environment,

and an autoletic (intrinsically rewarding) experience. Experiencing flow within certain activities leads to a desire to perform the activity for its own sake, therefore resulting in intrinsically motivated behaviour. This then suggests that flow is a subjective experience that can make behaviours intrinsically motivating (Csikszentmihalyi, 1975). Additionally, a review of research studies with various groups on the benefits and outcomes of flow have found high levels of motivation, self-confidence, competence, enjoyment, and other intrinsic rewards (Csikszentmihalyi, 1990).

When totally immersed in flow there is a sense of self-transcendence and harmony with one's surroundings (Emerson, 1998). 'One is freed of the confines of the social self and may feel an exhilarating sense of transcendence, of belonging to a larger whole' (Csikszentmihalyi, 1997, p.82). The literature has reported such experiences in a wide range of activities such as rock climbing, chess, and figure skating (Csikszentmihalyi, 1975, Jackson, 1992). Indeed, Phenix (1974) interprets the connectedness with nature as the 'transcendent' (p. 8), referring to feelings of limitlessness and going beyond natural realms. This sense of transcendence can be associated with spirituality. In particular, Long (2000) claims that experiences of transcendence must be interpreted through a metaphysical framework (i.e. a Māori world-view), and only then may it become spiritual. Therefore, the experiences on *tūrangawaewae* can be interpreted through the *taha wairua* cornerstone, thus linking flow to the Whare Tapa Whā model, and therefore a Māori world-view.

It can be suggested that physical activities based on one's *tūrangawaewae* may promote a sense of self-transcendence and therefore flow. In a similar fashion to how rock climbers feel at one with the environment (Csikszentmihalyi, 1975), Māori can feel

at one with the land and their ancestors when being physically active on their *tūrangawaewae*. This sense of ‘oneness’ can foster self-transcendence where the individual experiences a ‘close interaction with some Other, an interaction that produces a rare sense of unity’ (Csikszentmihalyi, 1990, p. 64). Accordingly,

...flow is a state with universal qualities that is experienced by people in a wide range of contexts. Elderly German gardeners describe the feeling of intense involvement they experience when tending their roses with similar words as Japanese teenagers use to describe how it feels to race their motorcycles. Navajo sheppards following their flocks on horseback also mention similar experiences. (Jackson & Csikszentmihalyi, 1999, p.5)

Likewise, Māori may have similar experiences when conducting physical activity on their *tūrangawaewae*. Enjoyment may arise as the individual is reconnecting with their ancestors and their land base, resulting in total involvement, attention and focus on the activity and environment – all of which accompany intrinsic motivation (Deci & Ryan, 1985). This positive experience can lead to a sense of flow, which can provide intrinsic motivation for the activity (Deci & Ryan, 1985).

The ability for flow to occur in a wide range of activities such as work, leisure and exercise (Csikszentmihalyi & Csikszentmihalyi, 1988) suggests that flow is a common experience that can be encountered by various people in various situations. Moreover, the feelings of enjoyment, self-transcendence, total involvement, and intrinsic motivation that are associated with flow, provide positive feelings and optimal experiences (Csikszentmihalyi, 1975). Therefore if individuals can identify these positives that are associated with flow, then individuals may be more likely to attend situations that can

foster this experience. Similarly, if individuals can identify the ability of *tūrangawaewae*-based physical activities to foster flow (and its associated positive feelings), then more individuals may undertake such activities.

The spirituality and self-transcendence associated with flow type conditions suggest that spiritual based interventions can be favourable for physical activity adoption and maintenance. Growing evidence has shown that spirituality and religious involvement can have a positive affect on the health behaviours of black Americans (Chatters, 2000; Strawbridge, Shema, Cohen, & Kaplan, 2001). For instance, one recent study estimated the effects of adding a faith-based component to a previously tested culturally tailored weight loss intervention for black women (Fitzgibbon, Stolley, Ganschow, Schiffer, Wells, Simon, & Dyer, 2005). Results from the initial culturally tailored weight loss intervention found that the intervention group lost significantly more weight than the control group (Fitzgibbon et al., 2005). Moreover, participants suggested that a faith based component could enhance the cultural sensitivity of the intervention. Hence, the purpose of the subsequent study. Although the results indicated no significant difference with the previous culturally tailored intervention (in terms of weight loss and change in Body Mass Index), the effect size suggests that a faith based component can improve results. The effect size for this particular study (0.27) was significantly lower (approx 116%) than the previous study that compared the culturally tailored intervention with a control group. This small size effect, suggests that faith based weight loss interventions can potentially ‘produce a clinically significant additional effect on weight loss’ (Fitzgibbon et al., 2005, p. 1399). More precisely, incorporating healthy ways of preparing traditional black foods, emphasising family and social support, as well as

incorporating regular bible scriptures into the weekly exercise sessions, helped maintain attendance and healthy behaviour (Fitzgibbon et al., 1995).

Considering the role that spirituality plays in *Māoritanga*, it seems logical to include faith based interventions when working with Māori. Although not necessarily related to the specific faith based mechanisms mention in the study above, utilising the *tūrangawaewae* may provide a forum to help provide the faith/spiritual base. For example, *tūrangawaewae* may be able to promote the faith/spiritual base through the special connection with ancestors and the environmental features, as well as its ability to enhance the self-transcendence component of Flow (Csikszentmihalyi, 1990).

In 1999, Riley and Hendee conducted a study to investigate the motivations and benefits of a wilderness program. The study found that ‘to go on a spiritual journey’ was a leading motive for participating, whilst a ‘spiritual-connectedness’ and a ‘connection to nature’ were among the leading benefits of the wilderness program (Riley & Hendee, 1999). Thus these participants found that ‘spirituality’ was a leading motivating factor to participate in the wilderness program. Fox (1997) also found such responses to a women’s-only wilderness experience. There is reasonable evidence to suggest that *tūrangawaewae* can offer a similar setting where spiritual journeys, spiritual connectedness and a connection to nature can occur. The acknowledgement of a *whakapapa* (genealogy) link, use of *whanaungatanga* (group dynamics, interpersonal connections, extended kinship ties), and the spiritual link to the land (such as considering the *mauri* of environmental features), are cognitive processes that can fittingly facilitate those motives and benefits suggested by Riley and Hendee (1999). Having an indication of one’s *whakapapa* whilst present at their *tūrangawaewae* can promote a spiritual

journey by acknowledging the presence of *tīpuna* (ancestors) (Key Informant C, 2006), and therefore, such a situation may prove to be a motive for participating in physical activity on *tūrangawaewae*. The association of spirituality with physical activity among *tūrangawaewae* may entice those individuals who seek spiritual guidance or enlightenment.

These spiritually influenced cognitive process can foster a feeling of spiritual connectedness with those present, as well as those '*kua haere ki tua o te ārai*' (who have passed on), thus, such a circumstance relates to one of the benefits of the wilderness program suggested by Riley and Hendee (1999) as well as Fox (1997). Furthermore, the importance of land to Māori, as highlighted by the creation narrative and tribal links to land, can provide a special spiritual connection with the land (i.e. another benefit cited by Riley and Hendee, 1999, and Fox 1997). Although Riley and Hendee (1999) do not implicitly identify the form of physical activity evident in the wilderness program, the main point is that being present at one's *tūrangawaewae* (whether it be for a tribal gathering, leisure, or physical activity) can facilitate spiritual well-being, and such conditions can be motivating (both physically and emotionally) and therefore beneficial. Finally, combined with Henderson's (1993) definition of spirituality, there is reason to suggest that *tūrangawaewae* can also provide a sense of relatedness. Relatedness is characterised by the development of close and secure relationships within ones social context (Deci & Ryan, 1985). In this case, *tūrangawaewae* can promote a sense of relatedness with ancestors and the environment through the associated concepts of *whakapapa* and *whanaungatanga*. Moreover, relatedness has been shown to help contribute towards intrinsic motivation (Deci & Ryan, 1985).

Other benefits of utilising the *tūrangawaewae* as a culturally appropriate setting to conduct physical activity relate to the idea of a culturally safe environment. Individuals are surrounded by *whānau* (family) therefore problems related to image consciousness are not as prevalent as can be expected in more mainstream settings such as public recreation areas and public gyms (Te Puni Kokiri, 1995a). In the case of Te Whare Oranga at Tahuna Marae, issues such as clothing and ability do not matter (Te Puni Kokiri, 1995a). The concepts of *whanaungatanga* (extended kinship ties) and *manākitanga* (sharing and caring) help serve to alleviate such situations so as to create equal opportunities and success for those present.

Tahuna *marae* provides a specific example in where *tūrangawaewae* (in this case, Tahuna *marae*) is utilised as a culturally safe and appropriate setting to participate in physical activity. The *hapu* has set up weight and fitness equipment in order to motivate the *tangata whenua* (locals) and all Māori to improve their physical fitness, and subsequently, their health and well-being. By providing health initiatives and an exercise centre on the *hapu* land (therefore the *tūrangawaewae*), the developers hope to develop and sustain a spiritual connection, and at the same time, increase the number of Māori returning to their *tūrangawaewae* (Te Puni Kokiri, 1995a). Further to this point, psychologists have noted that ‘spirituality can be understood, for some people, as overarching frameworks that orient them to the world and provide motivation and direction for living’ (Hill & Pargament, 2003, p. 68). Thus, spirituality sensations that occur on *tūrangawaewae* offers motivation to conduct physical activity in a culturally significant setting.

In conclusion, *tūrangawaewae* offers a situation where individuals can be physically active within an environment that is spiritually and culturally relevant. In this respect, a number of *marae* have set up programs for promoting and conducting physical activity within one's *tūrangawaewae*. Accordingly, people may find motivation for physical activity through the utilisation of *tūrangawaewae* as a means of re-connecting with their ancestors and their land-base. These situations can be enjoyable and therefore help provide a sense of flow, fostering and signifying intrinsic motivation (Deci & Ryan, 1985). Participating in physical activity upon one's *tūrangawaewae* can not only improve one's health, but it also maintains a connection to the land and to Māori culture. The setting doesn't necessarily have to be one's *tūrangawaewae* as such, but simply an environmental setting that can replicate a close spiritual connection to ancestors, and to the environment and surroundings, such as recreation parks, the wilderness, beaches, and obviously *marae*.

## CHAPTER VIII: TAHA HINENGARO

‘Toi te kupu, toi te mana, toi te whenua’

*‘The permanence of the language, prestige, and land will uphold Māoritanga’*

### *The Psychology of Physical Activity and Te Reo*

There are a number of occasions throughout Māoridom and New Zealand society that contain aspects of *te reo*, such as simple greetings to more elaborate oratory speeches. More precisely, *te reo* is spoken in a variety of physical activity settings, such as delivering the Physical Education curriculum to school students (and more so *Kohanga*, *Kura Kaupapa*, and *Wharekura* students), and also during bilingual commentaries of national Rugby League matches. Moreover, lifetime involvement and participation at the various *whānau* and *hapu* gatherings (such as sport festivals and physical activity programmes) throughout Aotearoa, has identified the strong use and promotion of *te reo*. Incorporating *te reo* in physical activity settings is important for the promotion, revitalisation, and preservation of the language (Salter, 2002). The purpose of this chapter is to highlight how the use and incorporation of *te reo* within physical activity settings, can help promote physical activity and therefore increase Māori participation in physical activities.

There are a number of benefits associated with learning and attaining *te reo*, such as an increase in self-esteem and confidence among bilingual learners (Reedy, 1990; Te Puni Kokiri, 1993). Other benefits include an increase in cultural identity and understanding, as *tikanga* Māori is integral to *te reo* acquisition (Key Informant D, 2005). Similarly, the opportunity to learn *te reo* has been recognised as important to ‘longer term

goals of identity consolidation and preparation for greater involvement with *whānau* and the Māori community' (Durie et al., 1995, p. 22). Additionally, as suggested by the Whare Tapa Whā model (Durie, 1985), health and well-being can also be improved as language acquisition is associated with the *taha hinengaro* (cognitive) cornerstone. More recently, the Ministry of Health (1996) recognised the importance of *te reo* by introducing *te taha rangatira*, which recognises the importance of the Māori language to the health of Māori. Combined with the physical health benefits of physical activity (Hardman & Stensel, 2003), physical activities involving *te reo* offer an attractive package.

Individuals who want to learn *te reo*, or those who are in the process of learning, may adopt forms of physical activity if the activities themselves utilise *te reo* (Key Informant D, 2005). In this case, a motive for participation in physical activity could be the opportunity to be immersed in a *te reo* speaking environment, and therefore acquire a better understanding of the language. For example, one respondent in the Te Puni Kokiri Second Language Learners report stated that she 'just wanted to be in any environment that would encourage my *reo*' (p. 26), in this case, she chose *mau rākau wānanga* (Te Puni Kokiri, 2003). If certain forms of physical activity are able to incorporate the use of *te reo*, then individuals may be more inclined to participate as they are learning the language - and improving their health at the same time (Key Informant D, 2005). A specific example of this situation can be seen in *kapa haka* (Māori performing arts), where physical actions and movements are combined with *te reo* through Māori songs, chants, and *haka* (Key Informant C, 2005). Previous knowledge and understanding of *te reo* is not a pre-requisite, but is desirable. However, many individuals participate with very

little prior understanding of *te reo*. More importantly, songs, *haka*, and chants are taught and practiced in conjunction with the required physical movements. In this sense, *kapahaka* offers an example of where the use of *te reo* can promote physical activity. Furthermore, individuals may opt for the physical setting as a change from the more structured setting of the classroom situations, as many learners of *te reo* find the classroom structure of learning boring (Te Puni Kokiri, 1991).

Another example of a physical activity-based *te reo* initiative is Te Reo Kori. This initiative is a component of the physical education syllabus, (Department of Education, 1987), and it combines aspects of Māori movement, music, language, and *tīkanga* (Salter, 2002). Some of the specific activities involved include (Salter, 1998); *poi* (ball on a string), *tītītōrea* (short sticks), *koikoi* and *taiaha* (weaponry), and *tira* (long wand). More importantly, Te Reo Kori provides the opportunity to affirm personal identity and self-worth (Salter, 1998). This physical activity setting can therefore be attractive for those Māori seeking to re-affirm their links to *Māoritanga* as they engage in *te reo* and *tīkanga*.

Simple language structures or key words can be beneficial for learners within other physical activity contexts as well. For example, group fitness classes that utilise *te reo* as forms of basic instruction, motivation, or praise can be beneficial to those participating as linguistic knowledge is obtained whilst being involved in physical activity. Specific examples of this are maraerobics (Patterson, 2004), Te Reo Kori (Walker, 1995), *mau rākau* (Key Informant B, 2005), and *waka ama*, where instructions and movements are taught in *te reo*. The instructions are simple words and/or phrases such as left/right, up/down and number counting. Other terms or phrases can relate to praise and motivation, as well as the associated traditions and myths. Moreover, the use of *kīwaha*

(colloquial sayings) can be beneficial as these simple language structures can be remembered easier due to their distinctiveness and briefness.

Physical activities involving *te reo* can also be favourable for those who wish to exhibit and/or maintain their knowledge of the language. Such a setting can provide the psychological ‘need’ of competence as proposed by the SDT (Deci & Ryan, 1985). These physical activities can provide the opportunity for individuals to exercise their *reo* in a suitable cultural setting, and can therefore provide for their competence in *te reo*. Deci (1975) suggests that the need for competence leads people to participate and conquer challenging situations, and that attaining competence occurs through the interaction with challenging stimuli. Thus, individuals may participate in order to enhance their competence in *te reo*, whilst at the same time participating in physical activity. This motive for participation therefore stems from a desire to exercise their competencies. Such individuals may satisfy their need for competence through satisfying ‘the desire to engage challenges and exercise and expand skills’ (Ryan, Frederick, Lepes, Rubio, & Sheldon, 1997, p. 336). Although, it is not specifically competence in physical activity, participation may continue as the individual can still successfully or efficaciously function (in a sense of using *te reo*) within the setting. More importantly, if physical activity sessions are conducted in *te reo*, then individuals who can speak the language may be more likely to attend as it offers a chance to practice and improve their knowledge.

Acquiring *te reo* can also be seen as a reward for participating in physical activity because it reaffirms cultural ties as well as provide cognitive and socio-cultural benefits (Te Puni Kokiri, 1993). As such, the reward in this sense is not contingent on

performance per se, but rather on behaviour, the participation in physical activity. For example, participating in activities such as *kapa haka*, maraerobics, and those at *whānau* sport days can provide the opportunity to be immersed in a *te reo* environment. These particular activities emphasise participation rather than mastery performance. As such, competence in performance is not necessary, but rather, positive feedback for learning and participating is more favourable. Providing positive feedback such as verbal praise can promote intrinsic motivation (Cameron & Pierce, 1994). Moreover, verbal encouragement in *te reo* by way of key words and phrases can positively influence those present, both through a sense of belonging and the cultural relevance of using the language. Consequently, the positive feedback could then act as motivational feedback to continue participation.

In conclusion, physical activities involving *te reo* can be favourable strategies for health promotion and sustained physical activity. The main point is that these physical activities involving *te reo* can promote both the Māori language and physical activity. The promotion of physical activity occurs through the emphasis on having fun (such as maraerobics) and teamwork. The enhancement of self-esteem and confidence (Reedy, 1996; Te Puni Kokiri, 1993) that is attained through language acquisition, emphasise the cognitive benefits of *te reo*-based physical activities.

## CHAPTER IX: NGĀ WHAKĀRO

Since the dawn of colonisation within Aotearoa, the health and well-being of Māori has continued to deteriorate. From the substantial population loss that resulted from introduced disease and the land wars of the 19<sup>th</sup> Century (Durie, 1998b; Kingi, 2005), through the low socio-economical positioning during the early 20<sup>th</sup> Century (Durie, 1998b), to the subsequent prevalence with the major health diseases of the present day (Pomare et al, 1995), Māori have struggled to cope with the ever changing social reforms and increased westernisation (Durie, 1998b).

To help improve Māori health, the purpose of this study was to investigate the adequacy of various Māori concepts to promote physical activity and function as motivational strategies for Māori to conduct physical activity, and consequently, improve health and well-being. The specific Māori concepts that were investigated were *marae*, *mau rākau*, *tūrangawaewae*, and *te reo*. Framing these Māori concepts within the Whare Tapa Whā model of Māori Health (Durie, 1985) provided the link to health by highlighting the ability of the Māori concepts to promote a specific cornerstone of health.

To achieve the purposes of this study, the qualitative methodologies of auto-ethnography and discourse analysis were utilised. More precisely, data collection involved an extended literature review of the Māori concepts and mainstream theories of the psychology of physical activity, as well as information gained from key informants. Auto-ethnography was established by referring to the knowledge and experiences of the researcher within *Māoritanga*. Data analysis involved investigating the adequacy of the

Māori concepts to promote physical activity and serve as motivational constructs for Māori to undertake physical activity. To help with this, the psychology of physical activity literature was utilised to interpret these functions. Discourse analysis was used in this process as it provides a suitable means of attaining an inherent understanding of the content framed by the researcher's world-view (Johnstone, 2002). Overriding the entire research process was a Kaupapa Māori world-view which has influenced the researcher since birth, and this paradigm has been successful in variety of other research domains such as education (Nepe, 1991), health (Barnes, 2000) and science (Cunningham, 2000).

#### *Te Whare Tapa Whā sustenance and physical activity promotion*

The Whare Tapa Whā model of Māori health (Durie, 1985) emphasises the importance of fostering all four cornerstones (family, physical, spiritual, and cognitive) to achieve health. This provides symmetry and a stable foundation for strength, in a similar fashion to the four walls of a house. Results of this study have shown that Māori concepts can be used to promote health through these four cornerstones.

#### Taha Whānau

The *taha whānau* cornerstone can be promoted through the concept of *marae*. The *marae* was shown to have the ability to promote the fundamentals of *taha whānau*, which signifies an integral link and relationships with *whānau* and others. For example, the practice of *manākitanga* (caring, sharing, hospitality) and *whanaungatanga* (interpersonal connections, extended kinship ties) help provide a supportive and caring environment within *marae*.

The *marae* offers a possible avenue to promote physical activity, and therefore provide Māori with culturally relevant forms of physical activity motivation. Results show that the *marae* has the ability to foster and promote the psychological ‘needs’ of relatedness, competence, and autonomy, as described by the SDT (Deci & Ryan, 1985). These psychological ‘needs’ have been previously shown to be related to physical activity participation (Deci & Ryan, 1985; Ryan et al., 1997). The sense of relatedness is fostered on the *marae* through the associated concepts of *whakapapa* (genealogy), *manākitanga*, *whanaungatanga*, and the *whānau* atmosphere. The evidence suggests that these particular concepts reflect the development of close and secure relationships within one’s social context (Deci & Ryan, 1985), as well as the components of relatedness suggested by Ryan and Deci (2000) of; the quality of relationships with others, feeling understood, and having fun with others. Therefore, *marae* based physical activities can be successful in creating an enjoyable and friendly atmosphere. This atmosphere reflects the desire for Māori to be involved with *whānau* and *hapu* when participating in physical activity (Cram, Karehana, & Pitama, 1999; Rewi, 1992; Te Puni Kokiri, 1995b).

Competence is another psychological ‘need’ that can be fostered and promoted in the *marae*. Many people cite low perceptions of ability for physical activity as a leading barrier towards physical activity participation (Carroll & Loumidis, 2001; Hurley, 2004; Pan American Health Organisation, 2001). This then indicates their lack of competence in this behaviour. The *marae* environment has the ability to increase perceptions of ability by promoting the vicarious experiences that are associated with Bandura’s (1977, 1997) Self-efficacy Theory. *Marae* provide the opportunity for modelling, whereby significant others (such as *whānau* members) can be seen participating in physical

activity. The vicarious experiences that can be attained through observing these situations can enhance the individual's belief in his or her ability to imitate the actions or behaviour, and therefore foster his or her competence as well (Bandura, 1977; 1997).

The *marae* can also provide somewhat, a certain level of autonomy that enables individuals to have identified and integrated regulations of behaviour. Although not necessarily providing full choice, the *marae* can offer incentives for participation. For example, an individual may willingly continue attending *marae* based physical activity classes because the individual believes it is important for continuing to maintain and establish new relationships/networks. Although not entirely an autonomous choice, the activity is personally important because of the valued outcome (Deci et al., 1991). The *marae* has also been shown to provide an autonomy supportive context, again through the associated concepts of *manākitanga* and *whanaungatanga*, as well as the guidance and support provided by *kaumātua*. Wilson and Rodgers (2004) reported in their study that such an environment was developed when significant others (such as friends) supported 'one's exercise decisions, understood another person's perspective, and conveyed confidence in one's ability to exercise' (p. 233). As such, the *marae* concept provides a context by where peoples perspectives are understood, and support for autonomy is provided by significant others (Deci & Ryan, 1985).

#### Taha Tīnana

The *taha tīnana* cornerstone can be promoted through the concept of *mau rākau*. With the emphasis on physical movement inherent in both the cornerstone and *mau rākau*, physical activity is promoted. The concept of *mau rākau* is also able to promote a sense of relatedness in a similar fashion to *marae*. This is again attained through the concept of

*whanaungatanga*, as well as *tuakana-tēina* relationships and a sense of camaraderie. This social support that is evident in *mau rākau* can positively influence the continued attendance of an exercise program in a similar fashion to that found in Wankel, Yardley and Graham's (1985) study. Wankel et al (1985) found in-class buddy support, general class support, and leader support were the most important factors in continuing participation. Like the *marae* concept, the associated aspects of *whanaungatanga*, *tuakana-tēina* relationships, and camaraderie also provide an autonomy supportive context, which has been shown to support autonomy (Deci & Ryan 1985; Wilson & Rodgers, 2004). Finally, a sense of relatedness is also promoted with one's own personal *taiaha*. This stems from the personification of the *taiaha* and its link to an ancestor, signalling the importance of *whakapapa*.

Bandura (1986) proposed that high levels of self-efficacy can signify competence, and therefore in line with the propositions of the SDT (Deci & Ryan, 1985), can help facilitate intrinsic motivation. The *mau rākau* concept is able to provide vicarious experiences (to help develop one's self-efficacy) in a similar fashion to how a *marae* does. Such an environment can positively influence the individual's competence to participate in physical activity such as *mau rākau*, because an individual can observe *whānau* members participating successfully. This can then enhance his or her perceptions of ability (self-efficacy) to participate. For example, Bezjak and Lee (1990) and McAuley (1992) found that self-efficacy positively influenced participation in physical activity settings. Moreover, the opportunity to exhibit *mau rākau* performances can also enhance one's self-efficacy leading to more competent feelings. Finally, the incremental grading

system of *mau rākau* means that participants' progress at a suitable pace, which means individuals can progress competently.

The attainment or enhancement of one's *mana* that can be achieved through learning *mau rākau* (Key Informant B, 2006) can also influence the individual's self-esteem. Self-esteem is considered a key construct in the decision-making processes for involvement in physical activity, sport, and other health related activities (Biddle, 1997). Kang (2004) found that a person's level of self-esteem affected their intention to undertake physical activity. Those with high self-esteem were influenced by their similarity to a 'typical exerciser' (attained in a *mau rākau* setting by observing *whānau* members), and those with low self-esteem were influenced by positive attitudes towards the activity (attained in a *mau rākau* setting by emphasising the importance of learning and maintaining traditional customs and practices). Therefore for these particular people, the intention to participate in physical activity will be enhanced by identifying similarities with other participants, and having a positive attitude towards the activity. From a self-esteem perspective, the *mau rākau* setting provides a suitable context to positively influence the determinants (as identified by Kang, 2004) to undertake physical activity.

#### Taha Wairua

For the *taha wairua* cornerstone, the concept of *tūrangawaewae* has been shown to exhibit and promote the fundamentals of this cornerstone. The importance of land and a spiritual link to environmental features and significant others (such as ancestors), illustrates the ability of *tūrangawaewae* to promote and provide for the *taha wairua* cornerstone.

The *tūrangawaewae* concept can help motivate Māori to become more physically active through its integral link with the land, environment, and ancestors. Such a setting can provide self-transcendence, and more importantly, the optimal experience of flow. Deci and Ryan (1985) contend that flow experiences can foster and signify intrinsic motivation. To this extent, *tūrangawaewae* and the *whakapapa* link offers a situation where individuals can be physically active within an environment that is spiritually and culturally relevant. These findings are in accordance with the benefits and participation motives put forward by Fox (1997), Riley and Hendee (1999), and Stringer and McAvoy (1992), in regards to physical activity within the nature-based settings. The benefits and participation motives included a spiritual connectedness with those present and the land, and heightened levels of awareness and emotions. Accordingly, people may find motivation for physical activity through the utilisation of *tūrangawaewae* as a means of re-connecting with their ancestors and their land-base.

#### Taha Hinengaro

Finally, the results indicated that *te reo* is able to promote both the *taha hinengaro* cornerstone, as well as physical activity. The promotion of *taha hinengaro* occurs as *te reo* is a Māori specific expression of thought and feeling. Moreover, there are a number of physical activities which incorporate *te reo* (such as *kapa haka*, *waka ama*, Te Reo Kori, and maraerobics). These type of activities are important for health and well being because learning *te reo* has also been shown to provide higher self-esteem and greater confidence (Reedy, 1996; Te Puni Kokiri, 1993), as well as improved cultural identity and understanding (Key Informant D, 2005). These cognitive benefits further highlight the relevance and link to the *taha hinengaro* cornerstone. *Te reo*-based physical activities

also provide the opportunity for those individuals already learning the language and those wishing to learn, the opportunity to practice their knowledge whilst participating in physical activity. This can promote the immersion in a *te reo* speaking environment as a motive for participation. Consequently, competence can also be fostered by engaging in these *te reo* involving physical activities as a means of engaging in challenges that exercise and expand skills (Ryan et al., 1997). In combination with the other Māori concepts that were investigated, these physical activities can also provide the opportunity to learn other Māori *tikanga*. This reflects the concern expressed by Key Informant D (2006) that people are not given the opportunity to learn the language whilst incorporating cultural concepts as a component.

Acquiring *te reo* can be a reward for participating in these physical activities because it reaffirms cultural ties as well as provide cognitive and socio-cultural benefits (Te Puni Kokiri, 1993). In this sense the reward is not dependant on performance, but rather the participation in the physical activity. Accordingly, competence in performance is not required, but positive feedback and reinforcement is favoured. These situations can provide the positive feedback such as verbal praise that can promote intrinsic motivation (Cameron & Pierce, 1994). Intrinsically motivated behaviour is associated with greater psychological well-being, enjoyment, fun, and persistence (Ryan & Deci, 2000). More importantly, these findings suggest that incorporating *te reo* into physical activities can entice Māori participation as individuals may gravitate towards these activities as they provide the opportunity to rekindle or reaffirm a cultural *tāonga* (treasure) that is being increasingly sought after.

*Common themes among the Māori concepts*

Although the results have been presented chapter by chapter, or cornerstone by cornerstone, one must not forget the foundation of the Whare Tapa Whā model (Durie, 1985) which is an equal representation of the four cornerstones in order for the *whare* (house) to remain upstanding. Accordingly, the four cornerstones of the Whare Tapa Whā model (Durie, 1985) indicate that Māori health and well-being is holistic. This thesis makes this substantive point, as well as provide specific examples of how physical activity can be enhanced drawing on a holistic approach. This thesis does not, however, necessarily state that each of the Māori concepts must be utilised in order to achieve health. Certain Māori concepts can be used to provide sustenance for the corresponding cornerstone, and sustenance for the remainder cornerstones can be achieved through other means not necessarily related to physical activity. In this sense, this thesis provides examples of how to foster sustenance for the different cornerstones through concepts of physical activity promotion, other mediums (such as smoking cessation, religious attendance, and learning about one's *whakapapa/tūrangawaewae*) may help contribute to fulfilling the remaining four cornerstones.

In line with the holistical thinking of a Māori world-view, the results indicate an intricate link between many of the Māori concepts studied. Providing a stable cultural base is the *marae* and it's many associated aspects, and the *marae* is also associated with each of the concepts studied. For example, *marae* are situated on the *tūrangawaewae* of the *tangata whenua* (locals, hosts), many *mau rākau wānanga* and practices are regularly conducted on *marae*, and *te reo* is fundamental to the *marae* experience. In this sense, the *marae* can be utilised as a forum/setting to promote physical activity.

There was a common theme of belonging and togetherness that is evident among the Māori concepts studied. The specific concepts of *marae*, *mau rākau*, and *tūrangawaewae* seem to provide an environment conducive to a sense of relatedness. *Whanaungatanga* atmospheres seem to be evident within these concepts, as it provides a sense of togetherness or belonging (through genealogical links), affection (such as the purpose of *manāki*) and closeness (e.g., with the group, to ancestors, and within the space of *marae*). The sense of affection and closeness can also be evident through the *tuakana-tēina* relationships evident within *mau rākau*. The reciprocal relationship provides a close link between the participants as they pursue that same goal of attaining the knowledge of this traditional pastime. Moreover, the spiritual link with ancestors upon *tūrangawaewae* promotes a spiritual sense of relatedness. Such settings can also provide autonomy supportive contexts, whereby the *whanaungatanga* and *manākitanga* concepts promote the acknowledgement of others feelings, support for their actions by significant others, and more importantly, the provision of a culturally supportive environment by where participants share a common Māori world-view. Overall, these environments seem to promote a common theme or notion of *kōtahitanga* (unity). As such, the Māori concepts provide a sense of relatedness through a number of avenues, which are much akin to a Māori world-view.

Another common theme among the Māori concepts was the notion of potentially enhancing or developing human traits such as self-esteem, self-efficacy, and *mana*. Self-esteem and self-efficacy have been proven to influence behaviour towards physical activity (Bezjak & Lee, 1990; Biddle, 1997). The *marae* and *mau rākau* concepts provide avenues whereby self-efficacy can be enhanced through vicarious experiences, as both

concepts provide the opportunity to observe significant others participating in physical activity. The promotion of this theme is important, as previous studies have found that an individual's lack of competence to participate in physical activity has been a leading barrier to participation (Carroll & Loumidis, 2001). The opportunity to observe significant other participating may provide impetus to participate. In conjunction with *te reo*-based physical activities, these concepts also contribute to enhancing ones *mana* and self-esteem, as they are broadening their cultural knowledge as well as reaffirming cultural traditions. Consequently, there is scope for the Māori concepts to positively influence behaviour towards physical activity.

In conclusion, the results indicate that there is a strong link and relationship between the Māori concepts that were investigated. The commonalities between these Māori concepts also help to exemplify the importance of symmetry and strength that is emphasised by the Whare Tapa Whā model (Durie, 1985).

### *Theoretical implications*

At present, there is a lack of literature to help explain Māori physical activity from a psychology of physical activity point of view. This study sought to investigate the ability of Māori concepts to promote physical activity, and therefore provide Māori with culturally relevant mechanisms to undertake physical activity. In the process, a Māori world-view has been shown to reflect a number of the key characteristics that explain physical activity behaviour. The applicability and similarities of the major components of the SDT (Deci & Ryan, 1985), the Self-efficacy theory (Bandura, 1977), and the Flow theory (Csikszentmihalyi, 1975) to a Māori world-view, suggests that these theories may

help explain Māori physical activity behaviour. Modifying these theories to incorporate a Māori world-view may enhance their use in Māori health promotion.

The findings of this study suggest that there is ample scope to consider an indigenous Māori perspective of physical activity behaviour by incorporating aspects of the SDT, Self-efficacy theory, and the Flow theory. For example, the SDT proposes that intrinsic motivation can be maximised through satisfying the psychological needs of relatedness, competence, and autonomy (Deci & Ryan, 1985). From a Māori world-view, relatedness can be promoted through *whanaungatanga*, *manākitanga*, and *tuakana-tēina* relationships. Grouping these Māori notions together lends itself to the concept of *kōtahitanga*. Waiti (2003) found that *kōtahitanga* was a useful term to describe cohesion within a rugby team. *Kōtahitanga* can be loosely translated as unity or tribal unity, oneness, solidarity, or holism. The wider implications of this term can also refer to a sense of relatedness.

The findings of this study also suggest that competence can be promoted through enhancing one's self-efficacy, such as the vicarious experiences evident through *marae* and *mau rākau* environments. Bandura (1986) contends that high levels of self-efficacy can indicate a sense of competence. The ability of vicarious experiences to develop self-efficacy indicates the importance of social modelling and interaction, and again the notion of *kōtahitanga* can equate to this. Furthermore, for Māori, a sense of competence has strong links with a sense of *mana* (from a theoretical perspective). *Mana* is a prevalent power within Māoridom, and possessing *mana* can contribute to one's sense of competence. For example, an elite Māori sportsperson can be deemed to possess *mana* through virtue of sporting success, and this sense of *mana* can further enhance his/or her

competence for that sport. The development of self-efficacy in this sense relates to the enhancement of one's *mana*, by where an individuals sense of power, authority, or prestige (i.e. the common definitions of *mana*) influences their sense of competence.

A sense of autonomy however, has not been reflected within the Māori concepts of this study. This suggests that there needs to be future research to identify a physical activity-related Māori description of autonomy, or more precisely, *Tino Rangatiratanga* within physical activity. Although the Māori concepts of this study highlighted autonomy supportive contexts, a full sense of autonomy is not evident because forums such as the *marae* are steeped in strong tradition. However, autonomy may not be so important within a Māori world-view because *kaumātua* and ancestral customs/traditions can guide and emphasise the importance of physical activity. Nonetheless, the *kōtahitanga* atmosphere provides an autonomy supportive context (as shown by the *marae* and *mau rākau* concepts), so autonomy can be somewhat developed through this mechanism.

The results indicate that the Māori concepts can be useful in helping explain a Māori model of physical activity motivation. As such, and in line with the SDT (Deci & Ryan, 1985), intrinsic motivation for physical activity maybe fostered through an overriding notion of *kōtahitanga* which is able to provide a sense of relatedness, competence, and autonomy. Thus, various Māori concepts (such as *whanaungatanga*, *manākitanga*, and *tuakana-tēina* relationships) can help to develop and enhance a sense of cohesion, self-efficacy, self-esteem, and social support through the overriding notion of *kōtahitanga*. Enhancing these psychological constructs can help foster the psychological needs of relatedness, competence, and autonomy. Finally, intrinsic motivation for physical activity may then be fostered.

There is also evidence to suggest that a Māori world-view can be reflected within the Flow theory (Csikszentmihalyi, 1975). For example, the ample opportunity to experience transcendence whilst physically active upon one's *tūrangawaewae* suggests that optimal experiences can be achieved. In this case, the flow or transcendence is fostered through the spiritual link with ancestors and the environment. As such, there is evidence to suggest that the concept of *tūrangawaewae* can play an important role in the development of flow. Therefore, the opportunity for Māori to experience flow can be maximised through physical activity upon *tūrangawaewae*. Although not as evident or present as the similarities with the SDT (Deci & Ryan, 1985), the Flow theory (Csikszentmihalyi, 1975) has ample scope and potential for considering a Māori world-view.

In conclusion, these theoretical implications provide a framework to explain Māori physical activity behaviour, and therefore offer opportunities to foster this behaviour.

### *Practical implications*

There are a number of practical implications that arise out of the findings that could be implemented at the government, *iwi*, *hapu* and *whānau* level to help foster health and physical activity for Māori. Firstly, the government may like to recognise the importance of these Māori concepts to the promotion of physical activity. This recognition needs to be exhibited through government policy and funding initiatives. The He Korowai Oranga Māori health strategy (2002) goes some way in recognising the needs of Māori, and the results of this current study (such as the proposed relationship between the Māori concepts and the psychology of physical activity) provide relevant information that supports some of the initiatives put forward by this strategy. The ultimate aim of He

Korowai Oranga (Ministry of Health, 2002) is to achieve *whānau ora* (healthy families), through the directions, key threads, and pathways outlined below (see Figure 2.).

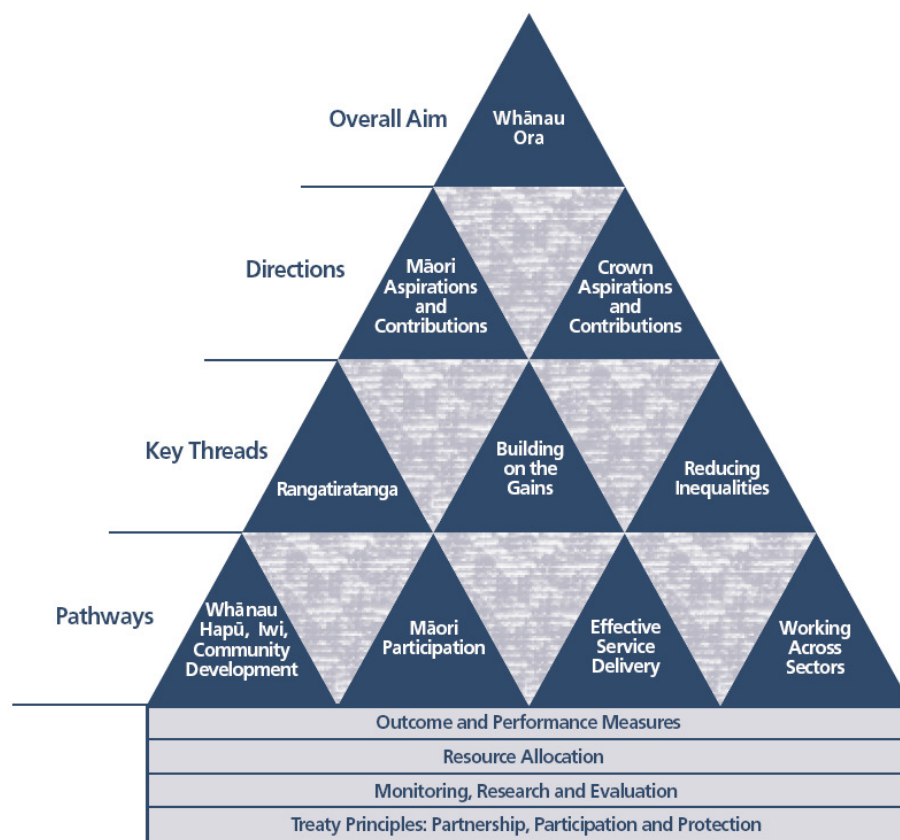


Figure 2. The structure of He Korowai Oranga (Ministry of Health, 2002, p. 4).

Figure 2. shows that the two directions that underpin *whānau ora*, are Māori aspirations and contributions, and Crown aspirations and contributions. The Māori direction seeks to support and uphold Māori aspirations and priorities for health, as well as service delivery. The Crown direction seeks to support Māori aspirations and priorities, as well as ensure accessible and appropriate services for Māori. The Crown also seeks to support District Health Boards (DHB's) in addressing access barriers for Māori such as the availability of quality, culturally appropriate services. This current

study suggests that health services (such as those for physical activity) should recognise the culturally appropriate Māori concepts of *marae*, *mau rākau*, *tūrangawaewae*, and *te reo* as effective mechanisms to promote physical activity, provide motivation to undertake physical activity, as well as emphasise their provision as culturally relevant settings for Māori. The District Health Board Toolkit: Physical Activity (Ministry of Health, 2003) also supports this promotion of Māori concepts to help promote physical activity among Māori.

An objective of pathway one (development of *whānau*, *hapu*, *iwi* and Māori communities) is to recognise and value Māori models of health such as Durie's (1985) Whare Tapa Whā model. The report goes on to state that 'the Ministry of Health will continue to encourage the integration and implementation of Māori models of health into the activities of the health sector' (Ministry of Health, 2002, p. 12). The current study sought to identify specific Māori concepts that could not only promote a specific cornerstone, but also promote physical activity. Therefore, the promotion of the Whare Tapa Whā through the Māori concepts that were investigated in this study, is one such example that the Ministry of Health can advocate. For example, future physical activity promotion by the ministry could emphasise the use of these Māori concepts as culturally relevant means to increase physical activity among Māori, as opposed to say traditional forms of physical activity promotion such as jogging and swimming which are less favourable to Māori than team/group type activities (Thompson, Rewi, & Wrathall, 2000). Indeed, Māori will be more physically active when participating with other Māori (Cram, Karehana, & Pitama, 1999; Rewi, 1992; Te Puni Kokiri, 1995b). The Māori concepts not only provide culturally relevant forms of physical activity, but they also

emphasise the tenets of a Māori view of health.

Objective two also stresses the need to advocate health promotion initiatives that are based on a Māori world-view in order to achieve effective results (Ministry of Health, 2002). Another example arises out of the *taha hinengaro* chapter, which suggests that *te reo*-based physical activities such as *kapahaka* should be promoted for their promotion of *te reo* and physical activity. More importantly, learning *te reo* has been shown to provide cognitive benefits such as increased self-esteem and confidence (Reedy, 1996; Te Puni Kokiri, 1993), and cultural understanding and identity (Key informant D, 2005). To help develop these types of programmes or activities, more advocacy and resources (e.g., funding for equipment and delivery personnel) can provide the appropriate means to do so. Developing more *te reo*-based physical activities by incorporating more *te reo* into current activities can also help. In this case, there is no limit to the number of physical activities that can contain *te reo*, but only the ability to translate the specific jargon of the various physical activities.

In line with the bottom-up approach of Kaupapa Māori research (Bishop, 1996), practical implications from this study will be more successful through *whānau*, *marae*, and *iwi* actions. As such, it may be advantageous for *marae* throughout Aotearoa to utilise some of the key findings of this research to help improve *whānau* health. What better way for Māori to demonstrate a level of autonomy and self-determination in promoting our own health (Durie, 1999b), than by utilising the cultural bastion that is *marae* and *tūrangawaewae*. This suggestion is in accordance with an objective of pathway two (Māori participation in the health and disability sector) of He Korowai Oranga, which is to ‘increase the capacity and capability of Māori providers to deliver

effective health and disability services for Māori' (Ministry of Health, 2002, p. 16). This current study suggests that the provision of a culturally relevant setting that incorporates Māori *tikanga* such as *whanaungatanga*, *tuakana-tēina* relationships, and spiritual links with the land and ancestors may be conducive to health behaviour change. As such the *marae* and *tūrangawaewae* can be suitable settings to deliver culturally relevant, and effective, physical activity programmes. However, *marae* may need to increase their services with regards to physical activity. For example, activities such as *whānau kapahaka*, maraerobics, *mau rākau wānanga*, and eeling/gathering seafood are already conducted on many *marae*, but there may need to be an increase in the delivery of these services, as well as the campaigning of the health and social benefits of these types of activities (such as improved self-esteem and self-efficacy, and fostering camaraderie and flow experiences). Thus, health promotion initiatives should consider the *marae* and *tūrangawaewae* as forums or basis to promote physical activity.

In order to increase the capacity and capability for *marae* and *tūrangawaewae* to promote physical activity, proper resourcing by way of funding and personnel is required. Firstly, funding can help *marae* and *tūrangawaewae* develop and implement physical activity programmes such as *mau rākau wānanga* and *hīkoi* which could also outline the historical significance of certain areas. Providing historical content to participants can help promote flow experiences as they identify with ancestors and the environment. Secondly, funding can help *whānau* and *marae* develop more *te reo*-based physical activities by developing Māori vocabulary for certain physical activities. Thirdly, resources and funding are also needed for *marae* in order to establish health centres similar to that of Te Whare Oranga at Tahuna *marae*. There may also be a need to

develop more *marae* in the urban centres to help cater for the large number of Māori living in the cities. ‘Evidence is mounting to indicate that access to Māori resources is uneven and, for many *whānau* and their individual members, any meaningful identity is seriously compromised’ (Durie, 1998b, p. 197). In addition, community development that builds community capacity should be supported (Ministry of Health, 2003). The use of local *marae*, local history, locally based physical activities, local personnel, *tūrangawaewae*, and community input can all help community development. Finally, funding can also help employ delivery personnel (ideally of Māori descent) to help implement and deliver the programmes from a cultural perspective. As such, another theme of this pathway is that workforce development is also required to improve physical activity among Māori (Ministry of Health, 2003).

The findings of this study suggest that Māori-centred physical activities such as *mau rākau*, *hīkoi*, gathering *kaimoana*, maraerobics, and *te reo* based physical activities, offer settings conducive to the psychological needs of the SDT (Deci & Ryan, 1985), self-efficacy and self-esteem enhancement, as well as perceptions of flow. In order for these settings to promote these psychological benefits, an understanding of the psychological constructs is required, and an understanding of how they can be provided within the Māori settings is also required. There are a number of important strategies that the personnel will need to understand and implement to help apply the findings of this study. Firstly, the key personnel would need to know how to provide an autonomy supportive context, which can maybe be provided by developing group cohesion within the *rōpu* (group) and establishing the *whakapapa* and *whanaungatanga* links that maybe present. Secondly, they would also need to know how to provide vicarious experiences to enhance

individuals' sense of self-efficacy. The results show that this can be achieved through observing *whānau* members and significant others participating in physical activity, and the *marae* and *mau rākau* settings provide specific forums to do so. There is also a need to personnel to have an understanding of the historical and ancestral links of certain land areas in order to help promote transcendence among participants. Knowledge and understanding of *te reo* can also be beneficial as implementing *te reo* into the physical activities can help with language acquisition as well as the cognitive benefits mentioned earlier.

An objective of pathway three (effective health and disability services) is to improve Māori health information by developing quality Māori health research and providing Māori health providers with suitable access to this information. In terms of this study, the findings will be compacted into a 2-page handout in layman terms, and then distributed to the various Māori health providers. Doing so will provide these organisations with culturally relevant information to help entice Māori and *marae* into physical activity programmes. Such an approach can also help to advocate some of the mechanisms suggested by this research, such as the identification of a spiritual awareness of the environment and ancestors to help promote 'flow' sensations when being physically active within ones' *tūrangawaewae*. Accordingly, the strong presence of spirituality within *Māoritanga*, suggests that health promotion activities should provide spiritual components to entice Māori participation.

In terms of the *mau rākau* concept, its relevance as a concept to promote physical activity through its emphasis on providing relatedness, competence, and autonomy supportive contexts, highlights the importance of promoting this concept within

Māoridom. Such a concept that involves learning Māori traditions and history may prove beneficial to Māori health. At present, *mau rākau* is not recognised as a sport under SPARC regulations, and therefore funding is not provided (McConnell, 2000). Without adequate resourcing and advocacy, the important role of *mau rākau* in helping improve Māori health cannot be fully realised.

The suggestions put forward by this study highlight the need for suitable resourcing (by way of funding relevant personnel, future research, and program delivery) for Public Health Providers, especially those that seek to cater for the Māori population. He Korowai Oranga (Ministry of Health, 2002) provides a good starting point for the government to conduct its role as a Crown partner. Positive health implications of He Korowai Oranga (Ministry of Health, 2002) must ensure they reach the population at a *whānau* or *marae* level. The role then of SPARC's Regional Sports Trusts *kaiwhakahaere* (co-ordinators) becomes paramount. Doing so will ensure effectiveness. Finally, collaboration with *whānau* and *marae* will also help ensure the effectiveness of the health policy implications. 'Communities - whether they be based on *hapu*, *marae*, *iwi*, *whānau* or places of residence - must ultimately be able to demonstrate a level of autonomy and self determination in promoting their own health' (Durie, 1999b, p. 7).

#### *Future recommendations*

Future research should continue to investigate the relevance of a Māori world-view to theories of the psychology of physical activity, in order to help improve Māori physical activity participation rates as well as overall health. The nature of this study provided only conceptual findings highlighting the ability of the Māori concepts to promote

physical activity, and potentially motivate Māori to become physically active. It would be beneficial to conduct empirical research to determine the effectiveness of these findings. For example, self-efficacy, self-esteem, cohesion and social support have been highlighted as significant factors in fostering motivation to participate in physical activity (e.g., Bezzak & Lee, 1990; Carron, Widmeyer, & Brawley, 1988; Wilson & Rodgers, 2002), and the current study suggests that these particular factors can be developed within *marae*, *mau rākau*, *tūrangawaewae*, and *te reo*-based physical activity settings. It will therefore be beneficial to assess the levels of these constructs within these settings to determine the effectiveness of the Māori concepts in fostering them, and therefore promoting the psychological needs of the SDT (Deci & Ryan, 1985).

There are already a number of specific physical activity programmes conducted on *marae* and throughout *tūrangawaewae*, such as *mau rākau*, *hīkoi*, maraerobics and the Whare Oranga programme of Tahuna *marae*, which can be studied to investigate whether they facilitate the development of the psychological needs that are suggested to promote long-term physical activity behaviour. It would be beneficial to conduct longitudinal studies which examine the Māori concepts of *marae*, *mau rākau*, *tūrangawaewae*, and *te reo* over a period of time, to see if they enhance or develop physical activity attendance and maintenance as proposed by this thesis. Finally, qualitative research could be conducted to assess peoples' attitudes towards the four cornerstones of the Whare Tapa Whā model (Durie, 1985), and their beliefs regarding the ability of the Māori concepts and Māori physical activities to promote the cornerstones. Such an assessment could help provide further literature regarding the applicability of the Whare Tapa Whā model (Durie, 1985) to a Māori world-view.

A survey conducted on Māori to determine the attractiveness of a *te reo*-based physical activity programme to entice participants may be beneficial as well. This will achieve the purpose of ascertaining whether or not *te reo*-based physical activity programmes are attractive to Māori, and therefore entice participation. If this is the case, the development of more *te reo*-based physical activity programmes may be required to provide variety and to serve the various Māori communities throughout the country.

The strong sense of spirituality that was identified in wilderness/nature based settings overseas by Fox (1997), Fredrickson and Anderson (1999), Riley and Hendee (1999) and Stringer and McAvoy (1990), highlights the ability of these type of environments to promote transcendence and flow. It would be useful to assess the sense of spirituality among *tūrangawaewae* based physical activities (such as gathering *kaimoana*, hunting, eeling, and *hīkoi*), to elicit any subsequent associations of transcendence and flow. This could be achieved by conducting interviews of participants of these type of activities, therefore hopefully provide further evidence of the sense of spirituality evident upon *tūrangawaewae*. Further questioning could help identify particular motives for participating in these activities, which could ascertain whether it is the spiritual component that is attracting participation.

Attention towards the other psychology of physical activity theories may provide further applications for Māori and physical activity. The Theory of Planned Behaviour (Ajzen, 1985) and the Health Belief model (Becker & Maiman, 1975) have been shown to explain health behaviour among individuals, and linking these theories to a Māori world-view may provide further theoretical literature to help Māori become more physically active.

### *Conclusion*

To conclude this research, getting more Māori more active can have positive implications for all of New Zealand. An increase in Māori physical activity will help decrease health costs, not to mention other sectors of society such as education and labour. This thesis suggests that incorporating Māori values and principles into physical activity programmes can not only help promote physical activity among Māori, but also provide culturally relevant mechanisms to do so. The *marae*, *mau rākau*, *tūrangawaewae*, and *te reo*-based physical activities exemplify the ability of certain Māori concepts to promote health through the Whare Tapa Whā model (Durie, 1985) of Māori health, as well as promote physical activity. Consequently, Māori may be more inclined to participate when aspects of *Māoritanga* are incorporated.

## REFERENCE LIST

- American College of Sports Medicine. (2006). *ACSM's resource manual for guidelines for exercise testing and prescription*. Baltimore, MD: Lippincott, Williams & Wilkins.
- Anderson-Hanley, C. (1997). Adventure programming and spirituality: Integration models, methods, and research. *The Journal of Experiential Education, 20*, 102-108.
- Ajzen, I. (1985). From intention to actions: A theory of planned behaviour. In J. Kuhl & J. Beckman (Eds.), *Action-control: from cognition to behaviour* (pp. 11-39). Heidelberg: Springer.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review, 84*, 191-215.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Engelwood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Barlow, C. (2002). *Tikanga whakāro: Key concepts in Māori culture*. Auckland, New Zealand: Oxford University Press.
- Barnes, H. (2000). Kaupapa Māori: Explaining the ordinary. *Pacific Health Dialogue, 7*, 13-16.
- Bassett, S., Mavoa, H., & White, N. (1999). Health and Illness beliefs of Māori identifying with Ngāti Tama Iwi o Taranaki. *The Bulletin, 97*, 33-37.
- Baumeister, R., & Leary, M. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497-529.

- Becker, M., & Maiman, L. (1975). Sociobehavioral determinants of compliance with health care and medical care recommendations. *Medical Care, 13*, 10-24.
- Bennett, M. (1979). Te kupu whakamutunga: The last word. In The New Zealand Planning Council, *He Mātāpuna: A source* (pp. 74-79). Wellington, New Zealand: New Zealand Planning Council.
- Benton, R. (1987). From the Treaty of Waitangi to the Waitangi Tribunal. In W. Hirsh (Ed.), *Living languages: Bilingualism and community languages in New Zealand* (pp. 63-74). Auckland, New Zealand: Heinemann Publishers.
- Best, E. (1924). *Māori religion and mythology, being an account of the cosmogony, anthropogeny, religious-beliefs and rites, magic and folk lore of the Māori folk of New Zealand*. Wellington, New Zealand: Government Press.
- Best, E. (1925). *Tūhoe: The children of the mist*. Wellington, New Zealand: Reed Publishing Ltd.
- Best, E. (1929). *The whare kohanga and its lore*. Wellington, New Zealand: Government Printer.
- Best, E. (1982). *Māori religion and mythology*. Wellington, New Zealand: Government Printer.
- Best, E. (2001). *Notes on the art of war*. Auckland, New Zealand: Reed Publishing Ltd.
- Bezjak, J., & Lee, J. (1990). Relationship of self-efficacy and locus of control constructs in predicting college students' physical fitness behaviors. *Perceptual and Motor Skills, 71*, 499-508.
- Biddle, S. (1997). Cognitive theories of motivation and the physical self. In K.R. Fox (Ed.), *The physical self: From motivation to well-being* (pp. 59-82). Champaign, IL:

Human Kinetics.

Biddle, S. (1999). Motivation and perceptions of control: Tracing its development and plotting its future in exercise and sport psychology. *Journal of Sport & Exercise Psychology, 21*, 1-23.

Biddle, S., & Nigg, C. (2000). Theories of exercise behaviour. *International Journal of Sport Psychology, 31*, 290-304.

Bishop, R. (1996). *Collaborative research stories: Whakawhanaungatanga*. Palmerston North, New Zealand: The Dunmore Press Ltd.

Bishop, R. (2003). Changing power relations in education: Kaupapa Māori messages for "mainstream" education in Aotearoa/New Zealand. *Comparative Education, 39*, 221-238.

Blair, S. (1995). Exercise prescription for health. *Quest, 47*, 338-353.

Bollen, K., & Hoyle, R. (1990). Perceived cohesion: A conceptual and empirical examination. *Social Forces, 69*, 479-504.

Booth, M., Bauman, A., Owen, N., & Gore, C. (1997). Physical activity preferences, preferred sources of assistance, and perceived barriers to physical activity among inactive Australians. *Preventive Medicine, 26*, 131-137.

Buck, P. (1950). *The coming of the Māori*. Christchurch, New Zealand: Whitcoulls Ltd.

Burns, R. B. (1994). *Introduction to research methods*. Melbourne: Longman Cheshire.

Butterfield, J. (Ed.) (2003). *Collins English dictionary*. Glasgow, Scotland: Harpercollins.

Cameron, J., & Pierce, D. (1994). Reinforcement, reward and intrinsic motivation: A

- meta-analysis. *Review of Educational Research*, 64, 363-423.
- Caplan, R., Robinson, E., French, J., Caldwell, J., & Shinn, M. (1976). *Adhering to medical regimens: Pilot experiment in patient education and social support*. Ann Arbor, MI: University of Michigan, Institute for Social Research.
- Carroll, B., & Loumidis, J. (2001). Childrens perceived competence and enjoyment in physical education and physical activity outside school. *European Physical Education Review*, 7, 24-43.
- Carron, A. (1982). Cohesiveness in sport groups: Interpretations and considerations. *Journal of Sport Psychology*, 4, 123-138.
- Carron, A. (1988). *Group dynamics in sport: Theoretical and practical issues*. London, United Kingdom: Spodym.
- Carron, A (2000). *Cohesion in sport teams and exercise groups: An overview of 15 years of research*. Paper presented at the 2000 Congrès International de la SFPS - Paris INSEP- Conférences. Retrieved July 22, 2006, from <http://www.unicaen.fr/unicaen/sfps/pdf/congres2000-conf2.pdf>.
- Carron, A., & Chelladurai, P. (1981). The dynamics of group cohesion in sport. *Journal of Sport Psychology*, 3 (2), 123-139.
- Carron, A., Widmeyer, W., & Brawley, L. (1988). Group cohesion and individual adherence to physical activity. *Journal of Sport and Exercise Psychology*, 10, 127-138.
- Cartwright, D. (1968). The nature of group cohesiveness. In D. Cartwright & A. Zander (Eds.), *Group dynamics: Research and theory* (3rd ed., pp. 91-109). New York: Harper & Row.

- Caspersen, C., Powell, K., & Christenson, G. (1985). Physical activity, exercise and physical fitness: Definitions and distinctions for health-related research. *Public Health Report, 100*, 125-131.
- Chatters, L. (2000). Religion and health: Public health research and practice. *Annual Review of Public Health, 21*, 335-367.
- Community Probation Service. (2002). Magic happens at Gisborne wānanga. *Naku, 16*, 5.
- Courneya, K. (1995). Cohesion correlates with affect in structured exercise classes. *Perceptual and Motor Skills, 81*, 1021-1022.
- Cram, F., Karehana, M., & Pitama, S. (1999). *He Oranga Poutama: Third year evaluation report*. Auckland, New Zealand: International Research Institute for Māori and Indigenous Education.
- Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety*. San Francisco: Jossey-Bass Publishers.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row.
- Csikszentmihalyi, M. (1993). *The evolving self*. New York: Harper & Row.
- Csikszentmihalyi, M. (1997). *Finding flow: The psychology of engagement with everyday life*. New York: Basic Books.
- Csikszentmihalyi, M., & Csikszentmihalyi, I. (1988). *Optimal experiences: Psychological studies of flow in consciousness*. New York: Cambridge University Press.
- Cunningham, C. (2000). A framework for addressing Māori knowledge in research, science and technology. *Pacific Health Dialogue, 7*, 62-69.

- deCharms, R. (1968). *Personal causation*. New York: Academic Press Inc.
- Deci, E. (1971). Effect of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology*, 18, 105-115.
- Deci, E. (1975). *Intrinsic motivation*. New York: Plenum Press.
- Deci, E. & Ryan, R. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum Press.
- Deci, E. & Ryan, R. (1991). A motivational approach to self: Integration and personality. In R. Dienstbire (Ed), *Nebraska Symposium on motivation 1990: perspectives on motivation* (pp. 237-288). Lincoln: University of Nebraska press.
- Deci, E. & Ryan, R. (1994). Promoting self-determined education. *Scandinavian Journal of Educational Research*, 38, 3-41.
- Deci, E., Vallerand, R., Pelletier, L., & Ryan, R. (1991). Motivation and education: The self-determination perspective. *Educational Psychologist*, 26, 325-346.
- Denzin, N., & Lincoln, Y. (2000). *Handbook of qualitative research*. Thousand Oaks, California, USA: Sage Publications.
- Department of Education (1987). *A guide for success*. Wellington, New Zealand: Learning Media Ltd.
- Durie, M. H. (1985). A Māori perspective of health. *Social Science and Medicine*, 20, 483-486.
- Durie, M.H. (1994). Māori perspectives on health and illness. In J. Spicer, A. Trilin & J. Walton (Eds.), *Social dimensions of health and disease: New Zealand perspectives* (pp. 194-203). Palmerston North, New Zealand: Dunmore Press.
- Durie, M. H. (1998a). *Te mana, te kawanatanga: the politics of Māori self-*

- determination*. Auckland, New Zealand: Oxford University Press.
- Durie, M. H. (1998b). *Whaiora: Māori health development* (2nd ed.). Auckland, New Zealand: Oxford University Press.
- Durie, M.H. (1999a). Marae and implications for a modern Māori psychology. *Journal of the Polynesian Society*, 108, 351-366.
- Durie, M. H. (1999b). Te Pae Mahutonga: a model for Māori health promotion. *Health Promotion Forum of New Zealand Newsletter*, 49. Retrieved July 20, 2005, from <http://www.hpforum.org.nz/subitem.php?14+75#tepae>.
- Durie, M.H. (2001). *Mauri ora: The dynamics of Māori health*. Auckland, New Zealand: Oxford University Press.
- Durie, M., Allan, G., Cunningham, C., Edwards, W., Forster, M., Gillies, A., Kingi, T., Ratima, M., & Waldon, J. (1996). Oranga kaumātua: The health and wellbeing of older Māori people. In *A report prepared for the Ministry of Health and Te Puni Kōkiri*, Unpublished document.
- Durie, M., Gillies, A., Kingi, Te K., Ratima, M., Waldon, J., Morrison, P., Allan, G. (1995). *Guidelines for purchasing personal mental health services for Māori*. Palmerston North, New Zealand: Department of Māori Studies, Massey University.
- Ellis, C. & Bochner, A. (2000). Autoethnography, personal narrative, reflexivity. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp 733-768). London: Sage.
- Emerson, H. (1998). Flow and occupation: A review of the literature. *Canadian Journal of Occupational Therapy*, 65, 37-44.
- Estabrooks, P., & Carron, A. (2000). Predicting scheduling self-efficacy in older adult

- exercises: The role of task cohesion. *Journal of Aging and Physical Activity*, 8, 41-50.
- Feltz, D., & Lirgg, C. (2001). Self-efficacy beliefs of athletes, teams, and coaches. In R.N. Singer, H.A. Hausenblaus, & C.M. Janelle (Eds.), *Handbook of sport psychology* (pp. 340-361). New York: John Wiley.
- Feltz, D., & Payment, C. (2005). Self-efficacy beliefs related to movement and mobility. *Quest*, 57, 24-36.
- Fetterman, D. (1989). *Ethnography: Step by step*. California: SAGE Publications Inc.
- Fitzgibbon, M., Stolley, M., Ganschow, P., Schiffer, L., Sanchez-Johnsen, L., Wells, A., & Dyer, A. (2005). A combined breast health/weight loss intervention for black women. *Preventive Medicine*, 40, 373-383.
- Fitzsimons, P., & Smith, G. (2000). Philosophy and indigenous cultural transformation. *Educational Philosophy and Theory*, 32, 25-41.
- Forster, M., & Ratima, M. (1997). *Healthy marae: A report for the Midland Regional Health Authority*. Hamilton, New Zealand: The Authority.
- Fox, K. (2000). The effects of exercise on self-perceptions and self-esteem. In S. Biddle, K. Fox, & S. Boutcher (Eds.), *Physical activity and psychological well-being* (pp. 88-117). London: Routledge.
- Fox, R. (1997). Women, nature and spirituality: A qualitative study exploring women's wilderness experience. In *Proceedings from the 3<sup>rd</sup> Conference of the Australian and New Zealand Association for Leisure Studies – Leisure, People, Places and Spaces* (pp. 59-64). New South Wales, Australia: The University of

Newcastle.

- Fredrickson, L., & Anderson, D. (1999). A qualitative exploration of the wilderness experience as a source of spiritual inspiration. *Journal of Environmental Psychology, 19*, 21-39.
- Goudas, M., Biddle, S., & Fox, K. (1994). Perceived locus of causality, goal orientations, and perceived competence in school physical education classes. *British Journal of Educational Psychology, 64*, 453-463.
- Hardman, A., & Stensel, D. (2003). *Physical activity and health: The evidence explained*. London: Routledge.
- Harvey, G. (2002). A step into the light: Developing a culturally appropriate research process to study Māori rangatahi perspectives of leisure in one setting. *Waikato Journal of Education, 8*, 71-82.
- Hassandra, M., Goudas, M., & Chroni, S. (2003). Examining factors associated with intrinsic motivation in physical education: a qualitative approach. *Psychology of Sport and Exercise, 4*, 211-223.
- Hayano, D. (1979). Auto-ethnography: paradigms, problems, and prospects. *Human Organization, 38*, 113-120.
- Heintzman, P. (2000). Leisure and spiritual well-being relationships: A qualitative study. *Society and Leisure, 23* (1), 41-69.
- Henare, J. (1987). *He pepeha, he whakatauki no Taitokerau*. Whangarei, New Zealand: Department of Māori Affairs, Whangarei.
- Henare, M. (1988). Ngā tīkanga me ngā ritenga o te ao Māori: Standards and foundations of Māori society. In *The April Report of the Royal Commission on Social*

- Policy, vol III, part. 1* (pp. 3-41). Wellington, New Zealand: Royal Commission on Social Policy.
- Henderson, K. (1993). Rediscovering spirituality. *Camping Magazine*, March/April, 23-27.
- Hill, P., & Pargament, K. (2003). Advances in the conceptualization and measurement of religion and spirituality. *American Psychologist*, 58, 64-74.
- Hull, C. (1943). *Principles of behavior*. New York: Appleton-Century-Crofts.
- Hurley, R. (2004). *Whai ora(pursuing health) increasing physical activity for the prevention of type 2 diabetes*. Unpublished Masters Thesis, University of Otago, New Zealand.
- Irwin, K. (1994). Māori research methods and processes: An exploration. *Sites*, 28, 25-43.
- Jackson, S., & Csikszentmihalyi, M. (1999). *Flow in sports*. Champaign, IL: Human Kinetics.
- Jaffé, A. (1979). *C.G. Jung: word and image*. Princeton, N.J : Princeton University Press.
- Johnstone, B. (2002). *Discourse Analysis*. Malden, Massachusetts: Blackwell Publishers Inc.
- Ka'ai, T., & Higgins, R. (2004). Te ao Māori: Māori world view. In T. Ka'ai, J. Moorfield, M. Reily, & S. Mosley (Eds.), *Ki te whaiiao: an introduction to Māori culture and society* (pp. 13-25). Auckland, New Zealand: Pearson Education New Zealand Ltd.
- Kang, J. (2004). The role of self-esteem in initiating physical activity in consumption

- situations. *Journal of Sport Management*, 18, 255-273.
- Karetu, T. (1992). Language and protocol of the marae. In M. King (Ed.), *Te ao hurihuri: Aspects of Māoritanga* (pp. 29 – 43). Auckland, New Zealand: Reed Publishing.
- Keefe, V., Ormsby, C., Robson, B., Reid, P., Cram, F., & Purdie, G. (1999). Kaupapa Māori meets retrospective cohort. *He Pukenga Korero*, 5, 12-17.
- Kellehear, A. (1993). *The unobtrusive researcher: A guide to methods*. NSW (AUS): Allen & Unwin Pty Ltd.
- King, J. (2003). ‘Whaia te reo’, pursuing the language: how metaphors describe our relationships with indigenous languages. In J. Reyhner, O. Trujillo, L. Carrasco & L. Lockard (Eds.), *Nurturing native languages* (pp. 105 – 124). Flagstaff, AZ: Northern Arizona University.
- King, M. (1977). *Te Puea: a biography*. Auckland, New Zealand: Hodder & Stoughton.
- Kingi, T.K. (2005). *Māori innovation, Māori development, and Māori models of Health*. Paper presented at, Te Matarau: Provider Innovation Conference 2005. New Plymouth, New Zealand.
- Kingi, T.K., & Durie, M. (2000). *Hua Oranga: A Māori measure of mental health outcome*. Te Pumanawa Hauora, School of Māori Studies, Massey University: Wellington.
- Kowal, J. & Fortier, M. (2000). Testing relationships from the hierarchical model of intrinsic and extrinsic motivation using flow as a motivational consequence. *Research Quarterly for Exercise and Sport*, 71, 171-181.
- Landry, J. & Solmon, M. (2002). Self-determination theory as an organizing framework to investigate women’s physical activity behavior. *Quest*, 54, 332-354.

- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Li, F. (1999). The Exercise Motivation Scale: It's multifaceted structure and construct validity. *Journal of Applied Sport Psychology, 11*, 97-115.
- Long, J. (2000). Spirituality and the idea of transcendence. *International Journal of Children's Spirituality, 5*, 146-161.
- Lox, C., Martin, K., & Petruzzello, S. (2003). *The psychology of exercise: Integrating theory and practice*. Arizona, USA: Holcomb Hathaway Publishers Inc.
- Mahuta, R. (1974). *Whaikōrero: a study of formal speech*. Unpublished Masters thesis, University of Auckland.
- Markland, D. (1999). Self-determination moderates the effects of perceived competence on intrinsic motivation in an exercise setting. *Journal of Sport and Exercise Psychology, 21*, 351-361.
- Marsden, M. (1992). God, man and universe: A Māori view. In King, M. (Ed), *Te Ao Hurihuri: Aspects of māoritanga* (pp. 117-137). Auckland, New Zealand: Reed Publishing Ltd.
- Marsden, M. (2003). God, man, and universe, a Māori view. In C. Royal (Ed.), *The woven universe: Selected writings by Rev. Māori Marsden* (pp. 2 – 24). Otaki, New Zealand: Estate of Rev. Māori Marsden.
- McAuley, E. (1992). The role of efficacy cognitions in the prediction of exercise behaviour in middle-aged adults. *Journal of Behavioral Medicine, 15*, 65-88.
- McAuley, E., Lox, L., & Duncan, T. (1993). Long-term maintenance of exercise, self-efficacy, and physiological change in older adults. *Journal of Gerontology, 48*, 218-224.

- McAuley, E., & Mihalko, S. (1998). Measuring exercise related self-efficacy. In J.L. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 371-390). Morgantown, WV: Fitness Information Technology.
- McConnell, R. (2000). Māori, the Treaty of Waitangi, and sport: a critical analysis. In C. Collins (Ed.), *Sport in New Zealand society* (pp. 227-239). Palmerston North, New Zealand: Dunmore Press.
- McEwan, J. (1966). The Māori language. In W. Phillips, *Māori life and custom* (pp.20-21). Wellington, New Zealand: Reed Books.
- Mead, H. (1997). *Landmarks, bridges, and visions: Aspects of Māori culture*. Wellington, New Zealand: Victoria University Press.
- Mead, H. (2003). *Tikanga Māori: Living by Māori values*. Wellington, Aotearoa: Huia Publishers.
- Metge, J. (1964). *A new Māori migration: Rural and urban relations in northern New Zealand*. Victoria, Australia: Melbourne University Press.
- Metge, J. (1995). *New growth from old: The whānau in the modern world*. Wellington, New Zealand: Victoria University Press.
- Ministry of Education. (1997). *Māori participation and performance in education: A literature review and research programme*. Wellington, New Zealand: Learning Media.
- Ministry of Education. (1999). *Health and Physical Education in the New Zealand curriculum*. Wellington, New Zealand: Learning Media.
- Ministry of Health. (1996). *He tatai i te ara: Guidelines for developing Māori health education resources*. Wellington, New Zealand: Ministry of Health.
- Ministry of Health. (1997). *Public health report Number 3: Mental health in New*

- Zealand from a public health perspective*. Wellington, New Zealand: Public Health Group.
- Ministry of Health. (2001). *DHB toolkit: Diabetes*. Wellington, New Zealand: Ministry of Health.
- Ministry of Health. (2002). *He Korowai Oranga: Māori health strategy*. Wellington, New Zealand: Ministry of Health
- Ministry of Health. (2003). *DHB toolkit: Cardiovascular disease*. Wellington, New Zealand: Ministry of Health.
- Ministry of Health. (2004). *A portrait of health: Key results of the 2002/2003 New Zealand health survey*. Wellington, New Zealand: Ministry of Health.
- Ministry of Health. (2006). *Whakatākaka tuarua: Māori health action plan 2006 – 2011*. Wellington, New Zealand: Ministry of Health.
- Ministry of Justice. (2003). *Part C: Overview: Research on the New Life Akoranga programme of the Mahi Tahī Trust*. Retrieved August 16, 2006, from <http://www.justice.govt.nz/pubs/reports/2003/mahitahi/part-c.html>.
- Ministry of Social Development. (2005). *Report 2004*. Wellington, New Zealand: Ministry of Social Development.
- Moorfield, J., & Johnston, E. (2004). Te reo Māori: Origins and development of the Māori language. In T. Ka'ai, J. Moorfield, M. Reily, & S. Mosley (Eds.), *Ki te whaiāo: An introduction to Māori culture and society* (pp. 36-49). Auckland, New Zealand: Pearson Education New Zealand Ltd.
- Morrell, M. (2003). Forethought and afterthought – two of the keys to professional development and good practice in supervision. *Social Work Review*, 15, 29-32.

- Morris, J., Clayton, D., Everitt, M., Semmence, A., & Burgess, E. (1990). Exercise in leisure time: Coronary attacks and death rates. *British Heart Journal*, 63, 325-334.
- Murchie, E. (1984). *Rapuora: Health and Māori women*. Wellington: Māori Woman's Welfare League.
- Nepe, T. (1991). *E hao nei e tenei reanga te toi huarewa tupuna: Kaupapa māori, an educational intervention system*. Unpublished master's thesis, University of Auckland, New Zealand.
- New Zealand Qualifications Authority. (2005). *Ao kawē kupu: The world of qualifications*, 3, Hakihea/December.
- Ntoumanis, N. (2001). A self-determination approach to the understanding of motivation in physical education. *British Journal of Educational Psychology*, 71, 225-242.
- Osgood, C., Suci, G., & Tannenbaum, P. (1978). *The measurement of meaning*. Chicago, USA: University of Illinois Press.
- Simpson, J., & Weiner, E. (Eds.) (1993). *Oxford English dictionary*. Oxford, England: Clarendon Press.
- Paffenbarger, R., Hyde, R., Wing, A., & Hsieh, C. (1986). Physical activity, all-cause mortality, and longevity of college alumni. *New England Journal of Medicine*, 314, 605-613.
- Pan American Health Organisation. (2001). *Analysis by gender of dietary behaviour and exercise in the Caribbean: ACHR progress report*. Kingston, Jamaica: Caribbean Food and Nutrition Institute.
- Pate, R., Pratt, M., Blair, S.N., Haskell, W.L., Macera, C.A., Bouchard, C., Buchner, D.,

- Ettinger, W., Heath, G.W., King, A.C., Kriska, A., Leon, A.S., Marcus, B.H., Morris, J., Paffenbarger, R.S., Jr., Patrick, K., Pollock, M.L., Rippe, J.M., Sallis, J., & Wilmore, J.H. (1995). Physical activity and public health: A recommendation from the Centers For Disease Control and Prevention and the American College of Sports Medicine. *Journal of the American Medical Association*, 273, 402-407.
- Patterson, J. (1992). *Exploring Māori values*. Palmerston North, New Zealand: The Dunmore Press Ltd.
- Patterson, J. (1999). Finding mana on earth. *Pacific World*, October, 44-49.
- Patterson, K. (2004). Maraerobics. *New Zealand Fitness*, April/May issue, 18-21.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Pearce, N., Foliaki, S., Sporle, A., & Cunningham, C. (2004). Genetics, race, ethnicity, and health. *British Medical Journal*, 328, 1070-1072.
- Pere, R. (1979). My Māoriness. In The New Zealand Planning Council, *He Mātāpuna: A source* (pp. 23-26). Wellington, New Zealand: New Zealand Planning Council.
- Pere, R. (1984). Te Oranga o te whānau. In *Hui Whakaoranga: Māori Health planning workshop proceedings*. Wellington, New Zealand: Department of Health.
- Pere, R. (1994). *Ako: Concepts and learning in the Māori tradition*. Wellington: Te Kohanga Reo National Trust.
- Pere, R. (1997). *Te wheke: A celebration of infinite wisdom*. New Zealand: Ao Ake Global Learning Ltd.
- Phenix, P. (1974). Transcendence in the curriculum. In E. Eisner & E. Vallance (Eds.), *Conflicting conceptualizations of curriculum* (pp. 117-132). Berkeley, CA: McCutchan.

- Pihama, L., Cram, F., & Walker, S. (2002). Creating Methodological space: A literature review of Kaupapa Māori research. *Canadian Journal of Native Education, 26*, 30-43.
- Pomare, E., Keefe-Ormsby, V., Ormsby, C., Pearce, N., Reid, P., Robson, B., & Wātene-Haydon, N. (1995). *Hauora: Māori standards of health III*. Wellington, NZ: Te Rōpu Rangahau Hauora a Eru Pomare, Wellington School of Medicine.
- Powell, K. (2004). Developmental psychology of adolescent girls: Conflicts and identity issues. *Education, 125*, 77-87.
- Presbyterian Church of New Zealand. (1961). *A Māori view of the Hunn report*. Whakatane, New Zealand: Te Waka Kāraitiana Press.
- Priest, S. (1999). The management of adventure programming. In J. Miles & S. Priest (Eds.), *Adventure programming* (pp. 307-317). State College, PA: Venture Publishing Inc.
- Prochaska, J., DiClemente, C., & Norcross, J. (1992). In search of how people change. *American Psychologist, 47*, 1102-1114.
- Reed-Danahay, D. (1997). *Auto/Ethnography: Rewriting the self and the social*. Oxford, UK: Oxford International Publishes Ltd.
- Reedy, T. (1990). *Overview report of Kura Kaupapa Māori*. Unpublished Report.
- Rewi, P. (1992). *Māori participation in physical activity: Summary of findings*. Wellington, New Zealand: Hillary Commission for Sport, Fitness and Leisure.
- Richardson, P. (1988). *He tīkanga marae: guide to a marae*. Course Book: Department of Social Anthropology and Māori Studies, Massey University.
- Riley, M. & Hendee, J. (1999). Wilderness vision quest clients, motivations and

- reported benefits from an urban based program 1988-1997. In A. Watson, G. Aplet, J. Hendee (comps.), *Personal, societal, and ecological values of wilderness: Sixth World Wilderness Congress proceedings on research management, and allocation, Volume II* (pp. 123-127). Ogden, UT: Department of Agriculture, Forest Service, Rocky Mountain Forest Research Station.
- Ritchie, J. (2003). The applications of qualitative methods to social research. In Ritchie, J. & Lewis, J. (Eds.), *Qualitative research practice* (pp. 24-46). London: Sage Publications.
- Ryan, P. (1995). *The Reed dictionary of modern Māori*. Auckland, New Zealand: Reed Publishing Ltd.
- Ryan, R. (1995). Psychological needs and the facilitation of integrative processes. *Journal of Personality*, 63, 397-428.
- Ryan, R., Connell, J., & Deci, E. (1985). A motivational analysis of self-determination and self-regulation in education. In C. Ames & R. Ames (Eds.), *Research on motivation in education: The classroom milieu* (pp.13-51). New York: Academic Press.
- Ryan, R. & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68-78.
- Ryan, R. & Deci, E. (2001). To be happy or to be self-fulfilled: A review of research on hedonic and eudaimonic well-being. In S. Fiske (Ed.), *Annual Review of Psychology*, 52, 141-166. Palo Alto, CA: Annual Reviews Inc.
- Ryan, R., Frederick, C., Lepas, D., Rubio, N., & Sheldon, K. (1997). Intrinsic motivation and exercise adherence. *International Journal of Sport Psychology*, 28, 335-354.
- Ryan, R., Plant, R., & O'Malley, S. (1995). Initial motivations for alcohol treatment:

- Relations with patient characteristics, treatment involvement, and dropout. *Addictive Behaviors*, 20, 279-297.
- Sage, G. (1977). *Introduction to motor behavior: a neuropsychological approach* (2nd ed.). Reading, MA: Addison-Wesley.
- Sallis, J. & Owen, N. (1999). *Physical activity and behavioral medicine*. Thousand Oaks, California: Sage Publications.
- Salmond, A. (1975). *Hui: a study of Māori ceremonial gatherings*. Auckland, New Zealand: Reed Publishing (NZ) Ltd.
- Salter, G. (1998). Me ako ki ngā tīkanga Māori I Te Reo Kori: Culture and learning through Te Reo Kori. *Journal of Physical Education New Zealand*, 31, 18-21.
- Salter, G. (1999). "Coming to know" in teaching Physical Education: Moving across cultural boundaries. *Waikato Journal of Education*, 5, 189-198.
- Salter, G. (2002). *De-colonizing pedagogical processes in mainstream physical education: Fore-grounding culture in teaching and learning*. Retrieved March 12, 2006, from <http://www.ausport.gov.au/fulltext/2002/achper/Salter.pdf>.
- Scott, K., Sarfati, D., Tobias, M., & Haslett, S. (2000). A challenge to the cross-cultural validity of the SF-36 health survey: factor structure in Māori, Pacific and New Zealand European ethnic groups. *Social Science & Medicine*, 51, 1655-1664.
- Shirres, M. (1994). *Tapu: Te mana o ngā atua*. Auckland, New Zealand: Te Runanga O Te Hahi Katorika ki Aotearoa.
- Smith, G. (1992). Tāne-nui-a-rangi's legacy...propping up the sky: Kaupapa Māori as resistance and intervention. Unpublished paper, New Zealand Association

for Research in Education, Auckland.

Smith, G. (1997). *The development of Kaupapa Māori: Theory and praxis*.

Unpublished doctoral dissertation, University of Auckland.

Smith, L. (1986). *Behaviourism and logical positivism*. Stanford, California:

Stanford University Press.

Sonstroem, R., & Morgan, W. (1989). Exercise and self-esteem: Rationale and model.

*Medicine and Science in Sports and Exercise*, 21, 329-337.

Sport and Recreation New Zealand. (2001a). *Participation in sport & active leisure by*

*European NZ Adults*. Retrieved August 20, 2004, from

[http://www.sparc.co.nz/research/participation\\_european.php](http://www.sparc.co.nz/research/participation_european.php).

Sport and Recreation New Zealand. (2001b). *Participation in sport and active leisure by*

*Māori Adults*. Retrieved August 20, 2004, from

[http://www.sparc.co.nz/research/participation\\_Māori.php](http://www.sparc.co.nz/research/participation_Māori.php).

Spink, K., & Carron, A. (1992). Group cohesion and adherence in exercise classes.

*Journal of Sport and Exercise Psychology*, 14, 78-86.

Spink, K., & Carron, A. (1993). The effects of team building on the adherence patterns of

female exercise participants. *Journal of Sport and Exercise Psychology*, 15, 39-49.

Stafford, D. (1967). *Te Arawa: A history of the Arawa people*. Auckland: Reed

Publishing New Zealand Ltd.

Stephens, T., & Craig, C. (1990). *The well-being of Canadians: Highlights of the*

*1988 Campbell's survey*. Ottawa, ON: Canadian Fitness and Lifestyle Research

Institute.

Strawbridge, W., Shema, S., Cohen, R., & Kaplan, G. (2001). Religious attendance

- increases survival by improving and maintaining good health behaviors, mental health, and social relationships. *Annals of Behavioral Medicine*, 23, 68-74.
- Stringer, L., & McAvoy, L. (1992). The need for something different: Spirituality and wilderness adventure. *Journal of Experiential Education*, 15, 13-21.
- Sweatman, M., & Heintzman, P. (2004). The perceived impact of outdoor residential camp experience on the spirituality of youth. *World Leisure Journal*, 46, 23-31.
- Te Iwi o Rakaipaaka Incorporated. (2005). *PANUI*, 1, 46. Nuhaka, New Zealand.
- Te Puni Kokiri. (1993). *The benefits of Kura Kaupapa Māori*. Wellington, New Zealand: Te Puni Kokiri.
- Te Puni Kokiri. (1995a). *Health through the marae: Ngā tīkanga hauora o ngā marae*. Wellington, New Zealand: Te Puni Kokiri.
- Te Puni Kokiri. (1995b). *Omangia te oma roa: Māori participation in physical leisure*. Wellington, New Zealand: Te Puni Kokiri.
- Te Puni Kokiri. (1995c). *Te Māori me te waipiro: Māori and alcohol*. Wellington, New Zealand: Te Puni Kokiri.
- Te Puni Kokiri. (1998). *The National Māori language survey: Te mahi rangahau reo Māori*. Wellington, New Zealand: Te Puni Kokiri.
- Te Puni Kokiri. (2003). *Kei te ako tonu au: Strategies for second language learners of te reo Māori*. Wellington, New Zealand: Te Puni Kokiri.
- Te Puni Kokiri. (2004). *Kokiri Paetae: Celebrating Māori achievement*, June-July, issue 54. Wellington, New Zealand: PMP Print.
- Te Puni Kokiri. (2005a). *Kokiri Paetae: Celebrating Māori achievement*, February, issue 58. Wellington, New Zealand: PMP Print.

- Te Puni Kokiri. (2005b). *Kokiri Paetae: Celebrating Māori achievement*, July-August, issue 61. Wellington, New Zealand: PMP Print.
- Thogersen, C., Fox, K., & Ntoumanis, N. (2002). Testing the mediating role of physical acceptance in the relationship between physical activity and self-esteem: An empirical study with Danish public servants. *European Journal of Sport Science*, 2, 1-10.
- Thompson, J., Allen, P., Cunningham-Sabo, L., Yazzie, D., Curtis, M., & Davis, S. (2002). Environmental policy, and cultural factors related to physical activity in sedentary American Indian women. *Women Health*, 36, 59-74.
- Thompson, S., Rewi, P., & Wrathall, D. (2000). Māori experiences in sport and physical authority: Research and initiatives. In C. Collins (Eds.), *Sport in New Zealand society* (pp. 241-255). Palmerston North, New Zealand: Dunmore Press Ltd.
- Turner, R., Irwin, C., Tschann, C., & Millstein, S. (1993). Autonomy, relatedness, and the initiation of health risk behaviours in early adolescence. *Health Psychology*, 12 (3), 200-208.
- Vallerand, R. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. In M.P. Zanna (Ed.), *Advances in experimental social psychology: Vol. 29* (pp. 271-360). New York: Academic Press.
- Vallerand, R., & Fortier, M. (1998). Measures of intrinsic and extrinsic motivation in sport and physical activity: A review and critique. In J. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 81-101), Morgantown, USA: Fitness Information Technology Inc.
- Van Dijk, T. (1997). *Discourse as structure and process*. London, UK: Sage

Publications.

- Vayda, A. P. (1960). *Māori Warfare*. Wellington, New Zealand: Reed Books.
- Waiti, J. (2003). *Me pehea tatou? An investigation of Māori sport psychology equivalents*. Unpublished honour's dissertation, University of Otago, New Zealand.
- Walker, R. (1995). Te Reo Kori: 'A new direction'. *Journal of Physical Education New Zealand*, 28, 19-22.
- Walker, R. (2004). *Ka whawhai tonu matou: Struggle without end* (2nd ed.). Auckland, New Zealand: Penguin Books Ltd.
- Wankel, L. (1993). The importance of enjoyment to adherence and psychological benefits from physical activity. *International Journal of Sport Psychology*, 24, 151-169.
- Wankel, L., Yardley, J., Graham, J. (1985). The effects of motivational interventions upon the exercise adherence of high and low self-motivated adults. *Canadian Journal of Applied Sport Sciences*, 10, 147-156.
- Wehipeihana, N. & Burr, R. (2001). *Hīkoi 2000 evaluation main report*. Wellington, New Zealand: Hutt Valley Health.
- Weinberg, R., & Gould, D. (2003). *Foundations of sport and exercise psychology*. Champaign, IL: Human Kinetics.
- White, R. (1959). Motivation reconsidered: the concept of motivation. *Psychological Review*, 66, 297-333.
- Willig, C. (2001). *Introducing qualitative research in psychology: Adventures in theory and method*. Buckingham, PA: Open University Press.

- Williams, G., Cox, E., Kouides, R., & Deci, E. (1999). Presenting the facts about smoking to adolescents. *Archives of Pediatric Adolescent Medicine, 153*, 959-963.
- Williams, G., & Deci, E. (1998). The importance of supporting autonomy in medical education. *Annals of Internal Medicine, 129*, 303-308.
- Williams, G., Grow, V., Freedman, Z., Ryan, R., & Deci, E. (1996). Motivational predictors of weight-loss and weigh-loss maintenance. *Journal of Personality and Social Psychology, 70*, 115-126.
- Williams, H. (1971). *A dictionary of the Māori Language*. Wellington, New Zealand: Government Printer.
- Williams, J. (1991). Not ceded but redistributed. In W. Renwick (ed), *Sovereignty and indigenous rights* (pp. 190-197). Wellington, New Zealand: Victoria University Press.
- Williams, J. (2004). Papatuanuku: attitudes to land. In T. Ka'ai, J. Moorfield, M. Reily, & S. Mosley (Eds.), *Ki te whaiao: an introduction to Māori culture and society* (pp. 50-60). Auckland, New Zealand: Pearson Education NZ Ltd.
- Wilson, P., & Rodgers, W. (2002). The relationship between exercise motives and physical self-esteem in female exercise participants: An application of self-determination theory. *Journal of Applied Biobehavioral Research, 7*, 30-43.
- Wilson, P., & Rodgers, W. (2004). The relationship between perceived autonomy support, exercise regulations and behavioural intentions in women. *Psychology of Sport and Exercise, 5*, 229-242.
- Wilson, P., Rodgers, M., Blanchard, C., & Gessell, G. (2003). The relationship between psychological needs, self-determined motivation, exercise attitudes, and

physical fitness. *Journal of Applied Social Psychology*, 33, 2373-2392.

World Health Organisation. (2005). *European network for the promotion of health-enhancing physical activity*. Retrieved October 4, 2005, from

[http://www.who.dk/Document/HEphysical activityN/HEphysical activity\\_leaflet.pdf](http://www.who.dk/Document/HEphysical%20activityN/HEphysical%20activity_leaflet.pdf).

## GLOSSARY

Please note: a number of Māori words have various meanings and definitions.

Furthermore, the different definitions of these terms are required for the different contexts that they are/were used in.

Aotearoa = New Zealand, land of the long white cloud

Āhai = on-guard movements, postures, and stances

Ahi kaa = keeping the home fires burning, retaining a link with customary land

Āhukatanga = aspects

Ako Māori = the culturally preferred pedagogy principle (of Kaupapa Māori)

Ārero = tongue

Aroha = care

Ate = the butt of the shaft of the taiaha

Awa = river

Io = the supreme being

Ihi = vital force, personal magnetism

Iwi = tribe, people

Urupā = cemetery

Hā a kui mā a koro mā = the 'breath of life' from forebears

Haka = war dance/s

Hākari = feast

Hapu = Sub-tribe

Heke ngaru = surfing

Hīkoi = walk, walking

Hinengaro = the mind, cognitive

Hongi = exchange of breath, pressing of noses

Hui = formal meeting, conference, gathering

Huruhuru = feathers or hair lashed above the neck of the taiaha, to represent headwear

Kai = food

Kaimoana = seafood

Kaitiaki = custodian, guardian

Kaitiakitanga = guardianship, stewardship

Kaiwhakahaere = co-ordinator

Kaumātua = elders

Kaupapa = agenda, task, subject, theme, and the collective responsibility principle (of

Kaupapa Māori)

Kaupapa Māori = Māori methods, processes

Kakī = the neck of the shaft of the taiaha

Kanaka Maoli = Native Hawaiian

Kanohi-ki-te-kanohi = face to face

Kapahaka = traditional performing arts

Karakia = prayers, incantation/s

Karanga = welcoming call

Karu = eyes

Kete mātauranga = baskets of knowledge

Kia piki ake i ngā raruraru o te kāinga = the socio-economic mediation principle (of  
Kaupapa Māori)

Kīwaha = colloquial sayings

Koikoi = traditional weapon

Kō-iwi = bones

Kohā = gift giving/donation

Kohanga Reo = Māori language-medium preschool

Kohikohi kaimoana = seafood gathering

Kōrerorero = conversations, dialogue

Kōtahitanga = unity, togetherness

Kua haere ki tua o te ārai = those who have passed on

Kūmara = sweet potatoe

Kura = school

Kura Kaupapa Māori = Māori-language-medium primary school

Māoritanga = Māori culture

Mau rākau = traditional weaponry

Mau rākau wānanga = traditional weaponry camps

Mauri = life principle, life force, vitality

Mahinga kai = traditional gathering and preservation of food sources

Mamau = wrestling

Maunga = mountain/s

Maungapōhatu = the spiritual and customary mountain of the Tūhoe tribe

Mana = authority, prestige

Manāki = care, kindness, helpfulness

Manākitanga = caring, sharing, hospitality, helpfulness, kindness, togetherness

Manāki tangata = caring for (the) people

Mana Ake = uniqueness

Mana Atua = the authority of the gods, prestige derived from the gods or spiritual powers

Mana Tangata = prestige derived through prowess, achievement, and leadership

Mana Tīpuna = the authority of ancestors, prestige derived from ancestors

Mana Whenua = the authority over land, prestige derived from customary land

Manuhiri = visitor/s

Marae = customary meeting place

Marae Ātea = area in front of the meeting house

Maraerobics = aerobics activities conducted on marae

Mātauranga Māori = Māori knowledge

Mangopare = hammerhead shark

Mekemeke = boxing

Mihi = greeting/s

Mirimiri = traditional massage/manipulation

Moana = sea

Muru = revenge

Noa = free from restriction/s, safe

Pā = former name for marae complex, fortified village

Pāeke = all speakers from one side first

Paiheretia = a Māori model of counselling

Papakāinga = customary reserve, homeground

Papatuanuku = Earthmother

Pākeha = European

Pepeha = proverbs

Poi = ball on a string

Pounamu = greenstone

Poutokomanawa = center-post of the meeting house that upholds the roof

Pou Tahī = 1<sup>st</sup> grading, Ngāti Kahungunu Mau rākau

Pou Rua = 2<sup>nd</sup> grading, Ngāti Kahungunu Mau rākau

Pou Waru = 8<sup>th</sup> grading, highest rank of Ngāti Kahungunu Mau rākau

Poroporoāki = farewell

Pōwhiri = welcoming ceremony

Pukana = bulging eyes

Pūkohurangi = mist

Rau = the blade of the taiaha

Raupatu = confiscation

Rāhui = reserve

Rāranga = weaving

Rakau = slang for your own personal taiaha

Rangatahi = youth

Rangatiratanga = chieftainship

Ranginui = skyfather

Ritenga = rites

Rōpu = group

Roha = stingray

Romiromi = traditional form of massage/manipulation

Rongoa Māori = Māori medicine

Rongomaraeroa = god of cultivated food

Ruaūmoko = god of volcanoes

Rurutangiākau = a particular deity

Taiaha = longstaff weapon

Tāonga = treasures

Tāonga tuku iho = the cultural aspirations principle (of Kaupapa Māori), and treasures  
handed down by ancestors

Taūutuutu = speakers alternate in turn from each side

Tauparapara = description of one's whakapapa

Taha hinengaro = mental/cognitive aspect of health and well-being

Taha tīnana = physical aspect of health and well-being

Taha wairua = spiritual aspect of health and well-being

Taha whānau = family aspect of health and well-being

Tāhūhū = beam

Tāne-Mahuta = god of the forest

Tāne-nui-a-rangi = the progenitor of mankind

Tangaroa = god of the sea

Tangata whenua = native people of the land, indigenous New Zealand Māori, hosts,  
people of a given place

Tangi = funeral/s

Tāwhirimātea = god of the winds

Tapu = sacredness, restriction, forbidden

Te ao Māori = Māori culture, the Māori world

Te ao marama = the full light of day

Te ao tūroa = the wider physical surroundings

Te Arawa = the tribe of the Rotorua area

Te hau ora = the living breath

Te kete tuatea = basket of knowledge of ritual, memory, and prayer

Te kete tuauri = basket of knowledge of harm and evil

Te kete aronui = basket of knowledge to help mankind

Te pō = darkness

Te Rarawa = a tribe from Northland

Te reo (rangatira) = Māori language

Te reo me ngā tīkanga = Māori language and customs

Te Tiriti o Waitangi = The Treaty of Waitangi

Tewhatewha = another traditional elongated Māori weapon

Te Wheke = a Māori model of health, based on the metaphor of the octopus

Tīkanga = concepts/practices/customs/laws

Tīmatatanga = the beginning

Tīnana = body, physical form

Tino rangatiratanga = self-determination

Tira = long wand

Tī-rakau = traditional stick game

Tītītōrea = traditional stick game

Tohatoha = sharing

Tuakana – tēina = older-younger, reciprocal relationship

Tūhoe = a tribe from the Urewera region

Tūmataunga = god of war

Tūrangawaewae = a customary link with the land, home ground

Waiata = song

Waiora = total well-being

Wairua = spiritual, soul

Wairuatanga = spirituality

Waka = canoe

Waka ama = outrigger canoe

Wana = the convergence of ihi and wehi

Wānanga = learning forum, formal learning institutions, live-ins

Wehi = fearsomeness, awe

Wero = formal challenge, movements to entice a challenge

Ngāhere = forest

Ngā Pou Mana = a model of Māori well-being

Ngā tāonga tuku iho = the cultural heritage principle (of Kaupapa Māori)

Ngāti Tama = a tribe from the Taranaki region

Ngā Whakahaeretanga = the methodology

Whaikōrero = formal/traditional oratory, speech

Whakapapa = genealogy, genealogical history

Whakatauki = proverb

Whānau = family, the extended family structure principle (of Kaupapa Māori)

Whanaunga = relations

Whanaungatanga = group dynamics, interpersonal connections, extended kinship ties

Whānau ora = healthy families

Wharekai = dining room

Wharekura = Māori language-medium secondary school

Wharenui = meeting house

Whare Tapa Whā = a Māori model of health and well-being

Whare Wānanga = Māori tertiary education provider

Whāriki = a Māori research unit at Massey University

Whātumanawa = emotions, affective dimension

Whenua = land, placenta

Whētero = poking the tongue out

**APPENDIX A**

**INFORMATION SHEET FOR**

**PARTICIPANTS**

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you of any kind and we thank you for considering our request.

**What is the Aim of the Project?**

The main aim of this study is to investigate the capability of various Māori concepts (*marae, mau rākau, te reo, and tūrangawaewae*) to promote physical activity and therefore function as motivational strategies for Māori to conduct physical activity. Resulting in improved health and well-being.

This project is being undertaken as part of the requirements for a Masters of Physical Education (University of Otago).

**What Type of Participants are being sought?**

The type of participants being sought are key Māori informants who have a deep understanding of the particular Māori concepts that are being investigated.

**What will Participants be asked to Do?**

Should you agree to take part in this project, you will be asked to participate in an interview lasting approximately one hour. The interview will contain questions pertaining to your experiences, thoughts, feelings and ideas towards the particular Māori concept.

Please be aware that you may decide not to take part in the project without any disadvantage to yourself of any kind.

**Can Participants Change their Mind and Withdraw from the Project?**

You may withdraw from participation in the project at any time and without any disadvantage to yourself of any kind.

### **What Data or Information will be Collected and What Use will be Made of it?**

The interview will be audio tape-recorded for accuracy of your words and ideas, and (where possible) a typed transcript will be returned to you for checking. The data (i.e. recorded interview) will then be combined with the already obtained literature to provide a coherent interpretation of the Māori concept.

This project involves an open-questioning technique where the precise nature of the questions which will be asked have not been determined in advance, but will depend on the way in which the interview develops. Consequently, although the University of Otago Human Ethics Committee is aware of the general areas to be explored in the interview, the Committee has not been able to review the precise questions to be used.

In the event that the line of questioning does develop in such a way that you feel hesitant or uncomfortable you are reminded of your right to decline to answer any particular question(s) and also that you may withdraw from the project at any stage without any disadvantage to yourself of any kind.

Results of this project may be published but any data included will in no way be linked to any specific participant.

You are most welcome to request a copy of the results of the project should you wish.

The data collected will be securely stored in such a way that only those mentioned above will be able to gain access to it. At the end of the project any personal information will be destroyed immediately except that, as required by the University's research policy, any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed.

### **What if Participants have any Questions?**

If you have any questions about our project, either now or in the future, please feel free to contact either:-

Jordan Waiti  
School of Physical Education  
(03) 4798942

Dr Elaine Rose  
School of Physical Education  
(03) 4798941

**APPENDIX B**

**CONSENT FORM FOR**

**PARTICIPANTS**

My name is : (please print)

I have read the Information Sheet concerning this project and understand what it is about.

All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:-

1. My participation in the project is entirely voluntary;
2. I am free to withdraw from the project at any time without any disadvantage;
3. The data [*audio-tape*] will be destroyed at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed;
4. The open-questioning technique will not expose me to discomfort or risk.
5. I understand that the transcripts of the interview will be returned to me (where possible) so that I can add, delete or change any of the comments if deemed necessary.
6. The results of the project may be published but my anonymity will be preserved.

I agree to take part in this project.

..... (Signature of participant)

..... (Date)

This project has been reviewed and accepted by the Ethics Committee of the University  
of Otago