

**Within the current Primary Health Care System how easy is it for
Registered Nurses employed by Māori Health Care Providers to
work in a holistic way with people who have type II diabetes?**

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Abstract

“Unless we are making progress in our nursing every year, every month, every week, take my word for it we are going back.”

(Florence Nightingale. n.d.).

Background: Over the last 20 years Government policy has re-orientated health service delivery toward Primary Health Care (PHC) through a political agenda designed to address health inequities, increase access and improve health outcomes. Re-affirmation of Māori cultural identity and the emergence and development of Māori Health Providers has occurred during this time. Despite these advances statistics continue to demonstrate significant health inequity between Māori and non-Māori and this is starkly apparent when observing the incidence and complications of type II diabetes. Research related to the nature and contribution of Registered Nurses (RNs) clinical practice within the context of PHC in Aotearoa/New Zealand is limited. This thesis illustrates how the current PHC system supports RNs who are employed by Māori Health Care Providers to work holistically with people who have type II diabetes.

Aims: Within the context of RNs employed by Māori Health Care Providers:

- Identify elements of current PHC that facilitate or create barriers to holistic clinical practice with people who have a diagnosis of type II diabetes.
- Identify how RNs integrate biomedical quality indicators with holistic care of individuals and whānau who have a diagnosis of type II diabetes.

Methods: Ethics approval was obtained from the Central Regional Ethics Committee. RNs from three Māori Health Care Providers in the Wellington Region participated in focus group interviews. Consent was obtained from participants. Data was generated from transcribed interviews, policy documents, observation and field notes. Critical inquiry informed the research and provided a framework to interpret data. Case study was used to explore phenomena that emerged from thematic analysis of data and to develop understanding of the complex interactions influencing RN participants' clinical practice. Data source and investigator triangulation were employed to ensure accurate data interpretation.

Results: Three overarching themes emerged. These related to funding and contracts, the PHC context and type II diabetes. Significantly each theme and sub-theme acted as either a facilitator or a barrier depending on the context. The current funding/contract environment had the greatest impact and revealed the subtle power in the relationship between Māori Health Providers and Government Agencies. The way that RNs and Māori Health Providers continue to evolve to meet the needs of their communities was evident. Much of the innovative practice currently undertaken is unrecognised and unfunded due to the narrow focus of contract and reporting requirements.

Conclusion: The specific aims of the research were achieved by identifying RN participants' holistic practice and aspects of the current primary health care system that facilitated or created barriers. Inconsistencies between Government policy and the funding/contract environment were apparent. Funding and contract formulae are yet to evolve to meet Government strategic direction. Health inequities persist and the structural determinants of health contribute to this illustrating institutional racism inherent in the current system. RNs' 'voice' must be represented and contribute to Government policy as Māori Health Providers work toward improving health outcomes for Māori.

Acknowledgements

“He aha te mea nui o te ao? He tangata! He tangata! He tangata!”

“What is the most important thing in the world? It is people! It is people! It is people!”

Māori Proverb – Anonymous.

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Table of Contents

Abstract.....	i
Acknowledgements.....	iii
Table of Contents.....	v
List of Tables.....	vi
Appendices.....	vii
Glossary.....	viii
Chapter One Introduction.....	20
Chapter Two Background.....	28
Chapter Three Literature Review.....	37
Chapter Four Methods.....	92
Chapter Five Results.....	111
Chapter Six Discussion.....	137
Chapter Seven Conclusion.....	175
Reference List.....	180

List of Tables

TABLE 1: Participant Ethnicity Data (self-identification).....	106
TABLE 2: Māori Health Provider Service Features.....	107
TABLE 3: Data Analysis Summary of Themes and Sub-themes.....	111

Appendices

Appendix 1: Ti Tiriti o Waitangi/Treaty of Waitangi

Appendix 2: Participant Information Sheet

Appendix 3: Invitation to Participate

Appendix 4: Facilitator Interview Guide

Appendix 5: Central Regional Ethics Committee Approval CEN/10/03/018

Appendix 6: Whitireia HEdSS Board of Studies Approval

Appendix 7: Ngāi Tahu Research Consultation Committee Approval

Appendix 8: Consent Form

Appendix 9: Facilitator Confidentiality Form

Appendix 10: Transcribers Confidentiality Form

Glossary of Terms

Glossary

- Adiponectin - A protein hormone produced by adipose tissue (fat), assists metabolism of lipids and glucose. Adiponectin influences the body's response to insulin at a cellular level.
- Advocacy - Advocates promote the rights of the patient in the health care arena.
- Aetiology - Comprehensive study of disease development including the cause, origin, pathogens, route of entry into the body, and factors relating to the patient's susceptibility to the disease.
- Alba – Gaelic name for Scotland
- Albanach - Gaelic name for Scots
- Albanach- Gaelic name for Scottish
- Allele - One member of a pair or series of genes that occupy a specific position on a specific chromosome
- Annual Diabetes Review - a free annual review for people with a diagnosis of diabetes mainly undertaken in Primary Health Care Facilities, includes blood tests – for lipid profile, glucose, HbA1c, BUN & creatinine (renal function), Urinalysis- microalbuminuria, top to toe assessment including monofilament (10g) for peripheral neuropathy, review of medication and bi-annual retinal screening (arranged with optometrist prior to annual review).
- Aotearoa - New Zealand
- Asymptomatic - Having no symptoms of illness or disease

- Autosomal dominant - A pattern of inheritance in which an affected individual has one copy of a mutant gene and one normal gene on a pair of chromosomes.
Individuals with autosomal dominant diseases have a 50-50 chance of passing the mutant gene at conception
- Bioethical - The study of the ethical and moral implications of new biological discoveries and biomedical advances, as in the fields of genetic engineering and drug research
- Biomedical - Science relating to the activities and application to clinical medicine
- Bioscientist – An individual who applies the branches of natural science when dealing with the structure and behaviour of living organisms
- BUN/ blood urea nitrogen - a measurement of the amount of urea in the blood, urea forms in the liver as the end product of protein metabolism, circulates in the blood, and is excreted by the kidneys in urine. BUN is measured by a blood test and indicates the excretory function of the kidney
- Care Plus - a primary health care initiative targeting people with high health need due to chronic conditions, acute medical or mental health needs, or terminal illness. Care Plus aims to improve chronic care management, reduce inequalities, improve primary health care teamwork and reduce the cost of services for high-need primary health users
- Hapu -extended family
- Hauora – wellbeing
- HbA1c - A test that measures the amount of hemoglobin bound to glucose. It is a measure of how much glucose has been in the blood during the past two to four months

- HDL cholesterol - High density lipoproteins are made of fat and protein and carry cholesterol to the liver where it is removed from the body. A high level of HDL may decrease risk of cardiovascular disease
- He Korowai Oranga - Māori Health Strategy
- Holistic - Holistic medicine is a term used to describe therapies that attempt to treat the patient as a whole person. That is, instead of treating an illness, as in orthodox allopathy, holistic medicine looks at an individual's overall physical, mental, spiritual, and emotional wellbeing before recommending treatment
- Hui - To gather, congregate, assemble, meet, a gathering, meeting, assembly, seminar, conference
- Human genome - the human genome consists of all of the DNA in our chromosomes and mitochondria.
- Hyperglycaemia - abnormally high blood sugar usually associated with diabetes.
- Hyperinsulinaemia - the presence of excess insulin in the blood
- Hyperlipidaemia - the presence of excess fat or lipids in the blood
- Iwi - Extended kinship group, tribe, and nation - often refers to a large group of people descended from a common ancestor
- Incidence - The frequency with which something, such as a disease, appears in a particular population or area
- Indigenous - Ethnic groups who are native to a land or region, before the arrival and intrusion of a foreign and possibly dominating culture. They are a group of people whose members share a cultural identity that has been shaped by their geographical region

- Infrastructure - The basic physical and organizational structures and facilities (buildings, roads, power supplies, schools, hospitals, and local services) needed for the operation of a society or enterprise
- Innovative - Featuring new methods, advanced and original thoughts/systems, introducing new ideas, original and creative thinking
- Insulin - A hormone produced in the pancreas by the Islets of Langerhans that regulates the amount of glucose in the blood
- Insulin Resistance - (IR) is the condition in which normal amounts of insulin are inadequate to produce a normal insulin response from fat, muscle and liver cells
- Intersectoral - Intersectoral partnering is the process of creating joint inter-organizational initiatives across two or three sectors. This strategy generates sustainable solutions to development challenges by combining the distinct interests and resources of different actors.
- Islets of Langerhans - Groups of specialised cells in the pancreas that make and secrete hormones
- Kai - food
- Kaiāwhina - helper, assistant, contributor
- Karakia – Māori prayer
- Kaupapa - Māori ideology - a philosophical doctrine, incorporating the knowledge, skills, attitudes and values of Māori society
- Kawa whakaruruhau - cultural safety in nursing education in Aotearoa/New Zealand
- Korereo – Māori word for talk, conversation

- Mana - prestige, authority, control, power, influence, status, spiritual power, charisma, a supernatural force in a person, place or object
- Mana Motuhake - Māori political party (separate identity) which became part of the Alliance Coalition. It was founded in 1980 by Matiu Rata
- Mana Whenua - Indigenous rights
- Manaaki - To support, take care of, give hospitality to, protect, look out for
- Mātauranga - Education, knowledge, wisdom, understanding, skill
- Macrovascular - the portion of the vasculature of the body comprising the larger vessels, those with an internal diameter of more than 100 microns
- Māori - Aboriginal inhabitant, indigenous person, native, normal, usual, natural, common, belonging to Aotearoa/New Zealand
- Metabolic syndrome - a set of risk factors that includes: abdominal obesity, a decreased ability to process glucose (increased blood glucose and/or insulin resistance), dyslipidemia, and hypertension. Patients who have this syndrome have been shown to be at an increased risk of developing cardiovascular disease and/or diabetes
- Microalbuminuria - The urinary excretion of small amounts of albumin. The condition is an early indicator of altered glomerular permeability in diabetes
- Microvascular - the portion of the circulatory system that is composed of the capillary network
- Molecular - Study of the biochemical and biophysical aspects of the structure and Function of genes and other sub cellular entities. It provides knowledge of cellular differentiation and metabolism and of comparative evolution
- Monoamine oxidase - An enzyme in the cells of most tissues that catalyzes the oxidative deamination of monoamines such as serotonin

- Paternalistic - A policy or practice of treating or governing people in a fatherly manner,

- Mātauranga - Education, knowledge, wisdom, understanding, skill
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- Myocardial infarction - gross necrosis of the myocardium, due to interruption of the Blood supply to the area
- Nephropathy - Disease of the kidneys
- Neuropathy – Disease of the nerves
- Pākeha - New Zealander of European descent
- Pancreatic alpha cells - Secrete the hyperglycaemic hormone glucagon
- Pancreatic beta cells – secrete the hypoglycaemic hormone insulin

- Papatūānuku - Earth mother and wife of Rangi-nui. All living things originate from them
- Paternalistic - A policy or practice of treating or governing people in a fatherly manner, especially by providing for their needs without giving rights or responsibilities
- Pōwhiri - The pōwhiri or pōhiri, a central part of Māori protocol, is a ceremony of welcome involving speeches, dancing, singing and hongi
- Rangatahi - Younger generation, youth
- Rangatiratanga - sovereignty, chieftainship, right to exercise authority, chiefly autonomy, self-determination, self-management, ownership, leadership
- Rohe - boundary, district, region, territory, area, border (of land) to set boundaries
- Rongoā - to treat, apply medicines, remedy, medicine, drug, cure, medication, treatment, tonic
- Rangatira – leaders
- Resistin – A hormone that increases the resistance of cells to insulin, thereby causing levels of sugar in the bloodstream to rise
- Retinopathy - Disease of the retina that results in impairment or loss of vision
- Sept – In Scottish clans, septs are families that followed another family's chief. These smaller septs would then make up, and be part of, the chief's larger clan. A sept might follow another chief if two families were linked through marriage
- Socioeconomic - Relating to or concerned with the interaction of social and economic factors
- Taha hinengaro - Mental
- Taha tinana - Physical
- Taha wairua - Spiritual
- Taha whanau – Family

- Tamariki ora – well child
- Tangata whenua - Local people, hosts, indigenous people of the land - people born of the Whenua i.e. of the placenta and of the land where the people's ancestors have lived and where their placenta are buried
- Taurekareka - Captive taken in war, slave, scoundrel, idiot, rascal, rogue
- Te Ao Māori - The Māori world
- Te Pae Mahutonga – The Southern Cross, constellation Crux - a constellation seen in the southern skies. These are the stars depicted on the Aotearoa/New Zealand flag. A Māori health model based on this constellation
- Therapeutic - of or pertaining to the treating or curing of disease; curative
- Tikanga - correct procedure, custom, habit, lore, method, manner, rule, way, code, meaning, plan, practice, convention
- Tohunga - skilled person, chosen expert, priest - a person chosen by the tribe as a leader in a particular field because of signs indicating talent for a particular vocation
- Tohu – asvice, to preserve, conserve, sign, moar, symbol, emblem, token, qualification, cue, symptom, proof, directions, company, landmark
- Triglycerides – a major component of very low density lipoprotein (VLDL) they contribute to cardiovascular disease
- Tūpuna –ancestors
- Tutua – person of low birth, commoner, ordinary person
- Urbanisation - is defined by the United Nations as movement of people from rural to urban areas with population growth equating to urban migration
- Whaiora – health
- Waka – allied kinship groups descended from the crew of a canoe which migrated to Aotearoa/New Zealand, canoe, vehicle, conveyance, spirit medium

- Whakamana - warrant, to give authority to, give effect to, give prestige to, confirm, enable, authorise, legitimise, empower
- Whakapapa - genealogy, genealogical table, lineage, descent
- Whakapiri - to stick, fasten, remain close to, keep close, keep watertight, paste
- Whakawhanaungatanga - process of establishing relationships, relating well to others
- Whānau - extended family, family group, a familiar term of address to a number of people in the modern context the term is sometimes used to include friends who may not have any kinship ties to other members
- Whānua Ora – family group wellness
- Whanaungatanga – relationship, kinship

List of Abbreviations

- ANCC - American Nurses Credentialing Center
- ATP - Adenosine triphosphate
- CAD - Coronary Artery Disease
- CBG - CBG Health Research Limited
- CCDHB - Capital & Coast District Health Board
- CDA - Canadian Diabetes Association
- CHW - Community Health Worker
- CNS - Clinical Nurse Specialist
- COPD - Chronic Obstructive Pulmonary Disease
- CSDH - Commission on Social Determinants of Health
- CVD - Cardiovascular Disease
- DHB - District Health Board
- DNA - Deoxyribonucleic acid
- DOH - Department of Health
- DOL - Department of Labour
- DPPRG - Diabetes Prevention Program Research Group
- ECG - Electrocardiogram
- ED - Erectile dysfunction
- FDS - Fremantle Diabetes Study
- GESG - Global Economic and Social Council
- GP - General Practitioner
- GROS - General Register Office Scotland
- HbA1c - Glycosylated haemoglobin
- HCA - Health Care Aotearoa
- HCAs - Health Care Assistants
- HCl - Hydrochloric acid
- HDL - High density lipoprotein
- HPS - Health Promoting Schools
- HWNZ - Health Workforce New Zealand

- ICU - Intensive Care Unit
- ISD - Information and Statistics Department
- IT - Information Technology
- IWGIA - International Working Group on Indigenous Affairs
- LDL - Low density lipoprotein
- MCDHB - Mid-Central District Health Board
- MFAT - Ministry of Foreign Affairs and Trade
- MDT – Multi Disciplinary Team
- MHP - Māori Health Provider
- MHP1- Māori Health Provider 1
- MHP1a - Māori Health Provider 1a
- MHP2 - Māori Health Provider 2
- MHP3 - Māori Health Provider 3
- MI - Myocardial Infarction
- MODY - Maturity Onset Diabetes of the Young
- MOE - Ministry of Education
- MOH - Ministry of Health
- MOJ - Ministry of Justice
- MOSD - Ministry of Social Development
- MPDS - Māori Provider Development Scheme
- NCNZ - Nursing Council of New Zealand
- NDNKSF - National Diabetes Nursing Knowledge and Skills Framework
- NHS - National Health Service
- NP - Nurse Practitioner
- NPAC-NZ - The Nurse Practitioner Advisory Committee of New Zealand
- NRT - Nicotine Replacement Therapy
- NZ - New Zealand
- NZGG - New Zealand Guidelines Group
- NZNO - New Zealand Nurses Organisation
- NZSSD - New Zealand Society for the Study of Diabetes
- PAD - Peripheral Artery Disease
- PHC - Primary Health Care

- PHO - Primary Health Organisation
- PVD - Peripheral Vascular Disease
- RCN - Royal College of Nursing
- RN - Registered Nurse
- SIGN - Scottish Intercollegiate Guidelines Network
- TSE - The Scottish Executive
- TSG - The Scottish Government
- UK - United Kingdom
- UKPDS - United Kingdom Perspective Diabetes Study
- UN - United Nations
- USA - United States of America
- WHO - World Health Organisation

Chapter 1

Introduction

"One cannot expect positive results from an educational or political action program which fails to respect the particular view of the world held by the people. Such a program constitutes cultural invasion, good intentions notwithstanding."

(Freire, 1996, p129).

This research has arisen from my experience as a Registered Nurse (RN) working in Primary Health Care with individuals and families dealing with long term conditions including diabetes. An important aspect of my clinical practice is the acknowledgement of how an individual's circumstances affect the incidence of disease, the ability to manage these conditions and how this then affects health outcomes and incidence of complications. Type II diabetes is a complex health condition. Factors contributing to development of diabetes and the issues related to management of type II diabetes are also complex. Globally the prevalence of diabetes was estimated to be 2.8% in 2000 and this is researched to increase to 4.4% by 2030, creating a significant health burden (Wild, Rogli, Green, Sicree, King, 2004; World Health Organisation [WHO], 2007).

The role, scope of practice and responsibilities of RNs have evolved throughout my nursing career, presenting opportunities for RNs to extend their scope of practice. For example, I was able to develop nurse-led clinics for long-term conditions, specialising in type II diabetes, cardiovascular disease, asthma, chronic obstructive pulmonary disease (COPD) and clinical audit. Clinical audit demonstrated improved health outcomes. However, the audit reports failed to capture the essence of nursing or how RNs worked with individuals and families to achieve these improved health outcomes (Day, 2000; Day 2002a; Day, 2002b; Day, 2002c; Day, 2004).

Therefore the way that RNs capture the nature of their work, express and describe what they do and how it is done became another area of interest. RNs have to integrate biomedical quality indicators that demonstrate quality of care and improved health outcomes with the professional relationship and partnership that they have with individuals and families. How

RNs assist individuals to develop understanding of biomedical measurements and the way that RNs assist clients to reach and maintain these targets are critical elements of self-management that lead to improved health outcomes. Clinical audit and research data frequently fail to capture this aspect of the RN role.

Evidence is important to obtain and to maintain funding, demonstrate improved health outcomes and identify areas for improvement. Evidence can contribute to ensuring that services are successful and cost efficient, improve clinical nursing practice and demonstrate improved health outcomes. Within the health care environment there is potential that RNs and health providers may be driven to produce data that meets the contract requirements. However the data produced may not provide evidence of actual health gains or demonstrate that the needs of the individual or community are being met. These are aspects of nursing that have interested me for over 25 years.

On arrival in Aotearoa/New Zealand at the end of 2004 I spent time becoming familiar with the health care system and my role as a nurse in the New Zealand context. Many of the statistics for Māori and non-Māori seemed familiar to me. The statistics closely resembled many of the statistics of Alba/Scotland when compared with England which greatly interested me. Although Scottish people are not a minority population and may not be classed as indigenous as defined by the United Nations (UN), they have been colonised. On further investigation there were many parallels between Albanach/Scots and Māori of Aotearoa/New Zealand including type II diabetes and associated complications (The Scottish Government [TSG] (2005; TSG, 2008; TSG, 2008a; TSG, 2009).

Colonisation and Health Outcomes

Overview

There is compelling evidence that colonisation by western societies has resulted in poor health and socio economic outcomes for indigenous populations including Māori (United Nations [UN], 2006; WHO, 2007). The UN provides evidence that supports health outcomes as an important indicator of human rights (Ministry of Health [MOH], 2000; Ring & Brown, 2003; UN, 2006). Health, wellness and social wellbeing are linked to an individual's

circumstances within society and their ability to participate fully within that society (WHO, 2010). Therefore, the presence or absence of disease and illness is closely linked to the wider determinants of health including structural determinants that influence clinical nursing practice.

The effects of colonisation have resulted in unnecessary inequities for Māori that adversely affect health and are frequently represented as increased health needs (Jackson, 2001). Access to health care is influenced by geographic, financial, cultural and functional dimensions (WHO, 1998). Appropriate health services contribute to health and wellness including prevention and effective management of type II diabetes. Appropriate services acknowledge and respect the cultural, social and economic status of individuals and groups which are essential elements to improve inequities in health status (WHO, 1986; MOH, 2001). Māori experience unequal access and unequal outcomes at all levels of the healthcare system in Aotearoa/New Zealand (Baxter 2002; Robson & Harris, 2007).

Attainment of an equitable society is linked to fair access to resources such as, education, income and health services (UN, 2000). Self-determination and the opportunity to contribute to Government policy are overarching principles that assist indigenous populations and improve economic status and health (Moran, 2000; WHO, 2007a). Government policy exerts a powerful influence on the structural determinants of health and clinical nursing practice.

Aotearoa/New Zealand Context

In Aotearoa/New Zealand statistics demonstrate significant health disparities between Māori and non Māori. Type II diabetes and diabetic complications are a significant contributory factor to poor health outcomes for Māori (Bramley, Riddell, Crengle, Curtis, et al, 2004; Hannon, Gunor, Arslanian, 2006; Robson & Harris, 2007). These statistics do not reflect Government policy and national guidelines which provide a framework to support individuals to make positive lifestyle changes and develop skills to manage their diabetes to reduce complications (Wagner, Austin, Von Korff, 1996; Lorig, Sobel, Stewart, Brown, et al, 1999; Wells & Wiltshire, 2005; National Health Committee, 2007; McBride, 2009; Funnell, Brown, Childs, Hass, et al, 2010). Evidence-based guidelines inform clinical nursing practice to

improve health outcomes and quality of care (NZGG, 2003; NZGG, 2005; Canadian Diabetes Association, 2008; SIGN, 2010).

Therefore the significance of the structural determinants of health in relation to Māori who have a diagnosis of type II diabetes cannot be underestimated. Inequity is perpetuated by factors that are frequently embedded in institutions and the influence of colonisation on the development of health services that are strongly dominated by a western, biomedical framework of funding and service delivery are evident (Sanson-Fisher, Campbell, Perkins, Blunden, Davis, 2006; Timu-Parata, 2006). The Human Rights Commission (HRC) defined discriminatory practice and stated that any conduct appearing to be fair or neutral that had the effect of discrimination against a person or group of people is discriminatory practice (HRC, 2002). However, in the last twenty years significant advances in Māori Health Provider development, health technology, re-orientation of health care and the role of health care professionals have occurred. These trends can be seen internationally and in Aotearoa/New Zealand. The evolving healthcare landscape will be discussed next.

Evolving Healthcare Landscape

Registered Nurses

Over the last twenty years RNs' role, scope of practice and responsibilities have developed and responded within a rapidly changing healthcare landscape. The traditional views and definitions of nursing no longer apply as the practice and responsibilities of RNs evolve. Evolution is defined as a process in which something changes into a different and usually more complex form and this is evident in the changes that have occurred in clinical nursing practice and the healthcare landscape over the last twenty year period.

In response to the changing role of RNs, a number of nursing organisations have undertaken research to re-define the role and scope of practice of RNs. The Royal College of Nursing (RCN) (2003) identified six defining characteristics of modern nursing and stated that the uniqueness of nursing lies in the combination of these. Facilitating improvement in health status, maintenance of wellness, recovery, living well with long term conditions to achieve

good quality of life and using clinical judgement to attain these goals are defined as core characteristics of modern nursing (RCN, 2003).

Similarly, in Aotearoa/New Zealand consultation commenced in May 2009 to review changes to the RNs' scope of practice. Expanded practice and the new scope of practice were released in September 2010 (Nursing Council of New Zealand [NCNZ], 2010). The new scope of practice framework allows RNs to develop their practice to meet health service and workforce needs. These changes acknowledge that RNs are undertaking health care activities in response to re-orientation of health services in a rapidly evolving health care landscape (NCNZ, 2010).

However, in PHC contractual requirements, access to funding, education and a structured career pathway and salary scale play a key role in RNs' ability to be responsive within the current health care system. The factors that influence this are: how nursing practice is organised and funded within the health care system; access to education; career pathways; legislation; registration and regulatory bodies (RCN, 2003; New Zealand Nurses Organisation [NZNO], 2007). RNs working for Māori Health Providers (MHPs) work to maintain many different contracts and there is often a lack of a clear career pathway or salary scale that reflects the experience of the RNs (NZNO, 2007).

Currently, RNs who are employed by Māori Health Care Providers are negotiating with employers and NZNO to develop a salary structure and pay parity that equates to the salaries of RNs who work for District Health Boards (DHBs) or other Primary Health Care Providers. The goal is to ensure that the Māori health care provider workforce is valued equitably with RNs working in other areas. Recruitment and retention of staff are essential to develop holistic therapeutic relationships with the community and for effective implementation of health care services (NZNO, 2007).

In June 2009 the New Zealand Government established the 'Whānau Ora Taskforce' with the aim of developing a framework for a whānau-centred approach for wellbeing and development. This may herald further evolution of Māori Health Care Providers and the role of RNs within this context as current contracts are disentangled in order to adopt whānau-centred services. A whānau-centred approach empowers families holistically and requires intersectoral collaboration to achieve appropriate and effective service provision. The

Taskforce recommend that reporting requirements must include quality indicators that measure outcomes rather than just output (Durie, Cooper, Grennell, Snivelu, Tuaine, 2010).

Therefore, within the current PHC environment significant changes have occurred and continue to occur. The impact of changes in Government policy and strategic direction affect the role of RNs working in this environment. RNs' clinical nursing practice is influenced by employment, funding and contractual arrangements and current Government strategic direction empowers RNs to work in partnership with individuals and communities (MOH, 2000; MOH, 2001; MOH, 2002). Identifying how the roles of RNs are supported within the current PHC structure is important to consider in relation to long term conditions.

Aims of the Study

The aim of this research is to identify aspects of the current primary health care system that facilitate or create barriers, as perceived by RNs who work with whānau diagnosed with type II diabetes that affect quality and delivery of care within Māori paradigms of health. The identification of facilitators and barriers has the potential to change current nursing practice within existing resources to provide culturally appropriate, affordable and effective care. For the purpose of this research, a barrier is defined as an obstacle, boundary or obstruction that affects RNs' ability to work holistically with individuals and whānau (Davis, 2005). A facilitator is defined as an action or process that hastens or enhances RNs' ability to work holistically with individuals and whānau (Davis, 2005).

A qualitative research design and methodology was used as it enables exploration of interactions between variables to develop understanding of people and their environment. Critical inquiry has its roots in critical social science which attempts to understand the oppressive features of an organisation, social structure or society. Critical inquiry aims to highlight those features to encourage emancipatory change from within and this is aligned with the aims of this thesis (Fay, 1987 as cited in Courtney & McCutcheon, 2010).

For the purpose of this research participants working for three Māori Health Care Providers in the Wellington Region were recruited. Participants formed a focus group at each locality and were interviewed using semi-structured open ended questions. The focus group interview data was individually coded and analysed thematically then amalgamated on a

concept map. A detailed account of each case was provided then triangulated prior to establishing the significance of emerging themes. The specific objectives of the study were to:

- Identify elements of the current primary health care system that facilitate RNs' ability to work holistically with people who have a diagnosis of type II diabetes;
- Identify elements of the current primary health care system that create barriers for RNs to work holistically with people who have a diagnosis of type II diabetes; and
- Identify how RNs incorporate quality indicators into the work that they undertake with individuals and within Māori paradigms of health as evidence based quality indicators for effective management of type II diabetes have a strong biomedical focus.

Outline of the thesis

The Background chapter (two) provides the context for the research starting with an overview of the legacy of colonisation that influences health and wellness for Māori in modern Aotearoa/New Zealand. Statistics continue to demonstrate inequities in health and health outcomes between Māori and non-Māori and this is most significant when looking at type II diabetes and associated complications (MOH, 2002; NZGG, 2003; MOH & University of Otago, 2006; Robson & Harris, 2007). The UN promotes utilisation of national statistics as a powerful tool for identification of human rights issues and accountability (UN, 2000; Jones, 2001; Bird, 2002; International Working Group on Indigenous Affairs [IWGIA], 2006; Harris, Tobias, Jeffreys, Waldegrave, Karlsen, Nazroo, 2006).

Government policy is an important aspect influencing discriminatory practice and inequities in society. For example, obesity is a contributing factor in the incidence of type II diabetes and urbanisation is an important aspect in the rise of obesity (MOH, 2005). The Hunn report of 1961 encouraged Māori to blend with pākeha culture and Government policy promoted movement of Māori to urban settings and away from traditional lifestyles and food sources (MOH, 1998). Discrimination has been identified by the UN as a violation of human rights that lies at the root of poor health status (UN, 2000; Jones, 2001; Bird, 2002; IWGIA, 2006; Harris, Tobias, Jeffreys, Waldegrave, Karlsen, Nazroo, 2006).

Chapter Three outlines five overarching categories that were thematically derived from the literature review. Namely:

- The role and scope of practice of RNs
- Type II diabetes
- PHC and intersectoral collaboration
- Genetics and Eugenics
- Māori Health Provider (MHP) development.

Each of these categories will be discussed in relation to this research. Within the categories identified from the literature, the role of genetics in development of type II diabetes raised a number of specific issues. The WHO recognises that health is influenced by genetics and access to health services but is determined by the individuals' circumstances and environment (WHO, 2007a; WHO, 2010). The impact of genetics versus the effects of colonisation on health status highlighted the potential influence of eugenics in relation to health inequity. The effects of colonisation strongly influence health, education and socio economic status. Ethnic differences in health frequently focus on genetics as a causative agent rather than the wider determinants of health which are directly influenced by colonisation (Jones, 2001).

The literature review also identified appropriate research methodology for the thesis. The Methods chapter (four) explains the theoretical approach that underpins the study and provides the framework for data analysis. The philosophical stance positions critical inquiry and social justice at its heart and this will be discussed in relation to data collection and analysis. Critical research is informed by the principles of social justice which are aligned with the aims of this study (Crotty, 1998).

The Results chapter (five) utilises quotes from participants to illustrate the data from each Māori Health Provider, grouped around themes. Three key themes which emerged from the data analysis were related to funding and contracts, type II diabetes and the primary health overall conclusion will be presented outlining recommendations for future research and changes to the current healthcare system.

Chapter Two - Background

“Injustice anywhere is a threat to justice everywhere.”

Martin Luther King Jr. (n.d.).

Colonisation and Inequity

Colonisation

Conflict over competing cultural priorities and active suppression of cultural practices, beliefs and language has resulted in marginalisation of indigenous communities with consequences that have long lasting effects (Walker, 1990; Iveson, Patton, Saunders (Eds).2002). Many indigenous people live on the margins of society and have the lowest standards of education and socio economic status, which impacts on health and wellness (Dow & Gardiner-Garden, 1998; Bird, 2002; UN, 2006). The loss of land ownership, language and cultural identity has resulted in inequities in power and status that demonstrate a disregard for customs and beliefs that differ from western custom and beliefs (MOH, 1993; WHO, 2007; Settee, 2008).

Disruption of indigenous people’s ties to land and cultural practices are important determinants of health, wellbeing and economic inequity (Commission on Social Determinants of Health [CSDH], 2007; Settee, 2008). Health outcomes of indigenous people are poor even in developed countries with strong infrastructures such as New Zealand, Australia, Canada and the United States of America (USA) (Dow & Gardiner-Garden, 1998; Bird, 2002; UN, 2006; Sanson-Fisher, Campbell, Perkins, Blunden, Davis, 2006; Timu-Parata, 2006). The differences in health between indigenous and non-indigenous peoples are linked to a range of components associated with socio economic and lifestyle factors, availability of appropriate health care and discrimination (Ellison-Loschmann & Pearce, 2006; MOSD, 2007). Socio economic inequities and discrimination limit access to education, employment opportunities, income, good housing and nutrition, leading to poor health outcomes (WHO, 2007a; MOSD, 2007; WHO, 2010).

Evidence demonstrates that the world's indigenous populations experience a disproportionate burden of type II diabetes and associated complications regardless of geographic location in both developing and developed nations, and this is closely related to socio economic status (Naqshbandi, Harris, Esler, Antwi-Nsiah, 2009). A number of key interdependent components have been identified that affect health outcomes for indigenous populations worldwide (Durie, 2003; WHO, 2007a; MOSD, 2007; TSG, 2008). For example, globalisation and urbanisation contribute to physical inactivity and dietary changes that increase the prevalence of obesity which is a strong risk factor for type II diabetes (WHO, 2007; DPPRG, 2009). Population growth and an aging population have also been identified as contributing factors in the incidence of type II diabetes (WHO, 2007).

Inequity

Disparities in health between Māori and non-Māori have been evident throughout the colonial history of New Zealand (Ellison-Loschmann & Pearce, 2006). Current statistics demonstrate significant inequities between Māori and non-Māori and the factors that contribute to these is complex (MOH & University of Otago, 2006; WHO, 2007). Access to appropriate health care and differences in quality of care are major contributing factors to health inequalities (Jones, 2001). Evidence confirms that access, level of care and health outcomes differ between Māori and non-Māori in primary and secondary health care services (Tukuitonga & Bindman, 2002; Ellison-Loschmann & Pearce, 2006; MOH & University of Otago, 2006).

Improving access to appropriate care is critical to address health disparities. The UN, WHO and the Global Economic and Social Council have adopted health equity as a core global development goal. This is underpinned by a strong focus on primary health care based on equity, health promotion and disease management (WHO, 2008a). However, the over or sole emphasis of a western biomedical framework of health delivery may contribute to health inequity by failing to acknowledge or address the holistic beliefs, social and health requirements of indigenous people including Māori (Sanson-Fisher, Campbell, Perkins, Blunden, Davis, 2006; Timu-Parata, 2006).

Western societies have based and emphasised healthcare and healthcare delivery within the biomedical paradigm which draws on empirical scientific evidence (WHO, 2000; Crisp &

Taylor, 2009). The biomedical framework is a conceptual model of illness that excludes psychological and socio economic factors and includes only biological factors in diagnosis, treatment and management of illness including type II diabetes (Crisp & Taylor, 2009). Although the biomedical focus of healthcare delivery is useful, it does not necessarily acknowledge indigenous peoples' view of health and illness and this may impact on the effectiveness of healthcare initiatives (Toth, Cardinal, Moyah, Ralph-Campbell, 2005).

Effective healthcare for indigenous populations must overcome many barriers that include socio economic, historical, cultural factors and the sole or over emphasis of the biomedical healthcare model (Toth, Cardinal, Moyah, Ralph-Campbell, 2005). The WHO defines health as a state of complete physical, mental and social wellbeing and this reflects a holistic paradigm of health (WHO, 2000). This holistic approach emphasizes all aspects of health including psychological, social and economic factors that influence health status (Crisp & Taylor, 2009). Indigenous people tend to focus on a holistic view of health that often emphasises the interaction between physical, mental and spiritual health of an individual that exists in harmony with family, environment and the universe (WHO, 2000; Crisp & Taylor, 2009).

Māori concepts of health and wellbeing generally encompass a holistic approach that interweaves physical, emotional, social, spiritual and ancestral dimensions and it is important to embrace these concepts in health service provision (MOH, 2001; MOH, 2003a). Te Pae Mahutonga, Te Whare Tapa Whā and Te Wheke are Māori models of health that conceptualise Māori paradigms of health and wellbeing. These models provide a framework for health professionals and service providers to deliver care within the cultural context of Te Ao Māori which is culturally appropriate and acceptable (MOH, 2002d). The essence of Māori wellbeing incorporates taha tinana (physical), taha wairua (spiritual), taha hinengaro (mental) and taha whanau (family). These fundamental elements are essential when working in partnership with Māori (MOH, 2001; MOH, 2002d; MOH, 2003a).

Te Tiriti o Waitangi/The Treaty of Waitangi and Cultural re-affirmation

The constitution of Aotearoa/ New Zealand is based on colonial British Government legislation. Te Tiriti o Waitangi/The Treaty of Waitangi addresses the relationship between

the early settlers and Māori. The Treaty forms the basis of rights for tangata whenua (Walker, 1990; Bryder & Dow, 2001; Walker, 2001; Lockyer, 2004; Consedine & Consedine, 2005; Orange, 2009). In Aotearoa/New Zealand Government agencies believe articles of Te Tiriti o Waitangi/The Treaty of Waitangi guide and inform the development of health services to improve health outcomes for Māori. The articles of Te Tiriti o Waitangi/The Treaty of Waitangi outline the principles of partnership, protection and participation that should underpin health service delivery although this is not always the case (MOH, 2003a; Te Puni Kokiri, 2003; Webber, 2004).

Nursing philosophy reflects Treaty obligations in relation to Articles Two and Three of Te Tiriti o Waitangi/The Treaty of Waitangi to produce nurses who can nurture the whaiora of clients by being safe and effective practitioners and this underpins all clinical nursing practice. Cultural re-affirmation laid the foundations for changes in Government Legislation, Nursing Council competencies and scopes of practice, Bachelor of Nursing curricula and Māori Health Provider Development. The MOH produced the Primary Health Care Strategy and He Korowai Oranga/Māori Health Strategy which acknowledge health and wellbeing and addresses the concept of whānau ora (MOH, 2001; MOH, 2002a; MOH, 2002b; MOH, 2002f). Through these policy documents the intention is to ensure that Māori families are supported to achieve their potential of health and wellbeing and to provide a framework for clinical nursing practice (MOH, 2002a; MOH, 2002b; MOH, 2002f; Horrocks, Anderson, Salisbury, 2002; Laurant, Reeves, Hermens, Braspenning, et al, 2004).

Furthermore, health reforms and funding have provided an opportunity for Māori health provider development and in 1997 the Māori Provider Development Scheme (MPDS) was established to support Māori health providers to develop effective health services. There are currently 240 Māori Health Providers successfully providing care in the primary health sector (MOH, 2004b; CBG, 2009). Health Care Aotearoa (HCA) is a successful national network of 53 iwi health service providers in the primary health care sector. HCA views health holistically and has a strong record of advocacy to influence Government policy (HCA, 2006). HCA provides culturally appropriate health care services committed to comprehensive health care provision and quality of care within Māori paradigms of health (HCA, 2006).

Therefore, Māori Health Providers have given nurses the opportunity to work in partnership with individuals, whanau (family), hapu (extended family) and iwi (tribe) to develop

innovative culturally appropriate practice. RNs working in this environment have the potential to improve access and health outcomes and reduce health inequalities (MOH, 2003b; MOH, 2005, MOH, 2005a). However, these services exist within a broader dominant western biomedical framework of health funding and delivery which may adversely affect service provision and clinical nursing practice within Māori paradigms of health (Sanson-Fisher, Campbell, Perkins, Blunden & Davis, 2006; Timu-Parata, 2006). Clinical nursing practice may be strongly influenced by funding and contractual requirements that have the potential to be of a higher priority than the needs of the community. Government policy in relation to funding and contracts is a powerful structural determinant of health (Sanson-Fisher, Campbell, Perkins, Blunden & Davis, 2006; Timu-Parata, 2006).

Type II Diabetes

The incidence of obesity, type II diabetes and metabolic syndrome are expected to rise significantly over the next 20 years. Māori and Pacific people and those who live in low socio economic areas are regarded to have the greatest increase which poses a complex public health issue (MOH, 2002; NZGG, 2003; Gentles, Metcalf, Dyall, Sundborn, et al, 2007). In 2003/4 the prevalence of type II diabetes was twice as high, and the risk of hospitalisation due to complications four times higher, for Māori than non-Māori (MOH, 2006b). The incidence of renal failure, amputation and heart disease were also disproportionately high in Māori compared to non-Māori (NZGG, 2003; MOH, 2006b).

Therefore RNs who work for MHPs play a critical role in working holistically with whānau to prevent and manage type II diabetes and associated complications. Research provides convincing evidence that cardiovascular complications, both microvascular and macrovascular, are reduced in patients with type II diabetes when target levels for blood pressure, HbA1c and lipid profile are achieved and maintained (Adler, Stratton, Neil, Yudkin, et al, 2000; Stratton, Adler, Neil, Matthews, et al, 2000; Kothari, Richard, Stevens, Adler, et al, 2002; Manley, 2003). The risk of diabetic complications is strongly associated with hyperglycaemia so any reduction in HbA1c values reduces the risk of complications (Adler, Stratton, Neil, Yudkin, et al, 2000; Manley, 2003).

A tension can exist between the western biomedical/scientific evidence based framework of healthcare delivery and Māori paradigms of health and wellness that are holistic. Holistic healthcare is defined as a system of comprehensive care that encompasses the physical, emotional and individual needs of the person. The sole focus on biomedical target levels is a strong influence that impacts on health care delivery and this is evident when working with individuals who have type II diabetes (Timu-Parata, 2006; Finlayson, Sheridan, Cumming, 2009). Within this context, little research has been undertaken with RNs who work at this interface.

Although a number of successful nurse-led initiatives have been identified both internationally and in Aotearoa/New Zealand, few have explored the interface between indigenous health beliefs and western biomedical healthcare delivery. Exploring this aspect of clinical nursing practice may identify structural determinants of health that contribute to health outcomes, either positively or negatively. Identifying facilitators and barriers that impact on clinical nursing practice are essential in order to develop nursing leadership in this environment. Building nursing capacity and capability are important to address health inequities within the current PHC system. RNs must be able to identify and articulate their role in order to contribute to policy development that is undertaken within Māori paradigms of health (Gauld & Mays, 2006).

Māori Society Pre-colonisation and the Effects of Colonisation

Māori Society Pre-colonisation

In Aotearoa/New Zealand it is important to acknowledge Māori society pre-colonisation and recognise the influences of colonisation that have contributed to inequity for Māori in contemporary society (Salmon, 1991). Māori define themselves through whakapapa (genealogical connections) to natural landforms which also have symbolic meaning and draw on the knowledge and practices of tūpuna (ancestors) in developing systems of healing and to maintain wellness (Salmon, 1991; MOH, 1997; Lockyer, 2004). Māori hold a system of knowledge that is passed on by their oral traditions (Salmon, 1991). The marae provided the focus of social structure for Māori and the organisation of everyday life. Social issues,

education and trade were discussed and decided through traditional collective processes on the marae (Bennett, 2007).

Māori society was underpinned by complex values and principles that conceptualised how Māori viewed their world and they had a strong organisational structure based on the collective strength of each individual member (Lockyer, 2004; Orange, 2009; Ministry of Justice [MOJ], 2010). Spiritual and physical aspects were inseparable and closely linked to tūpuna (ancestors) and whakapapa which connected individuals to the infrastructure of traditional Māori society (MOJ, 2010). Land was not viewed as a commodity but as an essential component of society that provided a source of identity, harmony and continuity that linked individuals, inanimate and animate objects, this strengthened the close relationship Māori had with the environment (Orange, 2009; MOJ, 2010a.).

The basis of Māori society consisted of the whanau, hapu and iwi. Iwi are identified by territorial boundaries and whakapapa. Iwi were of great socio economic and cultural importance in Māori society (Taonui, 2009). Tohunga were a group within society who held important specialist knowledge, both spiritual and physical for the community (MOH, 1993; Williams 2004; Taonui, 2009). Tohunga recognised that environmental, emotional, spiritual, familial and psychological disorders can cause ill health and therefore used karakia (prayer), traditional plants and herbs to accomplish healing (Rolleston, 1989; Salmon, 1991; MOH, 1993; Riley, 1994; Gilling, 1999; Williams, 2004). Māori believed in a connection between the spiritual and physical within this traditional knowledge system (Papakura 1986; Rolleston, 1989; MOH, 1993; Lockyer, 2004; Rochford, 2004; Taonui, 2009a).

Colonisation

Colonisation began shortly after Captain Cook explored coastal New Zealand in 1769, when Māori and British established trading partnerships (Lockyer, 2004; Orange, 2009). Cook found a land of independent tribes who had a well ordered, thriving, healthy society. Prior to the 1830s the majority of Europeans were transient visitors and early settlers had established good trading partnerships with Māori. During the 1830s land traders based in Sydney began to purchase large portions of land to sell for profit and relationships began to break down (Lockyer, 2004, Orange, 2009). In 1830 and 1831 a number of factors caused further

deterioration in relationships. For example, European traders in the Bay of Islands were lawless and had formed vigilante groups who fought each other and Māori (Orange, 2009).

Additionally, Europeans imported many infectious diseases that Māori had never experienced before and therefore had no immunity to protect them, which resulted in many deaths (Durie, 2003). Epidemics of influenza, diphtheria, tuberculosis, measles, whooping cough and typhoid had a devastating impact on Māori (Durie, 2003). Māori experienced problems finding treatment for diseases of which they had no prior knowledge and they experienced problems accessing the health care available to early settlers. Access to appropriate and affordable health care remains a current health issue for Māori (Dew & Davis, 2005; Ellison-Loschmann & Pearce, 2006).

Colonial officer James Busby established an independent New Zealand in 1835 and Māori viewed this as acknowledgement of their separate identity (Orange, 2009). This was followed by the development of the Te Tiriti o Waitangi/Treaty of Waitangi. The first signing of Te Tiriti o Waitangi/The Treaty of Waitangi was held in February 1840 and established British Sovereignty over Aotearoa New Zealand according to the English version of this document (Orange, 2009). This point is arguable as the Māori version allows governance not sovereignty of Aotearoa/New Zealand. Māori viewed the treaty as the start of an equal partnership which would improve trading opportunities and allow British officials to control traders and settlers (Lockyer, 2004; Orange 2009).

Māori and English versions of the treaty did not translate accurately, which led to differing interpretations that disadvantaged Māori. Te Tiriti/The Treaty affirms the rights of tangata whenua but the outcome of Te Tiriti/The Treaty benefited British settlers. British settlers acquired the political force to dominate and the consequences of the differing interpretations still impact on modern society (Walker, 1990; Bryder & Dow, 2001; Walker, 2001; Lockyer, 2004; Consedine & Consedine, 2005; Orange, 2009). Significantly, International Law upholds the Māori version of Te Tiriti o Waitangi/ Treaty of Waitangi.

Systematic erosion of Māori society that included loss of land, language and cultural heritage has had long term devastating effects on Māori society and health status (Belz, 1996; Gilling, 1999). For example, Government policy promoted movement of Māori to urban settings (MOH, 1998). This policy of social engineering meant that the majority of the land in

Aotearoa /New Zealand was no longer in Māori possession as they migrated to urban centres (MOH, 1998). The urban shift of families and individuals from supportive traditional communities induced a sense of disconnection and loss of cultural identity for Māori (MOH, 1998; Tellnes, 2005). Further decline in health status occurred for Māori due to the poverty that accompanied urbanisation, augmented by poor housing, unemployment and low incomes (MOH, 1998; Dew & Davis, (ed.), 2005; Tellnes, 2005; WHO, 2007).

This chapter has provided an overview of the context of the study and supports the rationale for undertaking this research. The relationship between current health status of Māori and the impact of colonisation have been outlined. The links between current health status of Māori and the impact of colonisation are transparent and important to consider as inequities in health status are often portrayed as increased Māori health needs (Jackson, 2002). The literature review chapter will explore the impact of colonisation in relation to the current health status of Māori. Literature reviewed pertaining to the research method and design, RNs' clinical practice, PHC, MHP development, type II diabetes and eugenics will also be presented.

Chapter Three - Literature Review

“The dominant elite consider the remedy to be more domination and repression, carried out in the name of freedom, order and social peace”.

(Paulo Freire, 1996, p59).

Introduction

The literature review aimed to identify gaps in knowledge, key emerging themes and appropriate research methodologies. The methods used in the literature search will be discussed. The main themes of the literature review will be outlined and summarised in relation to this research. International and national evidence highlighted major concepts that relate to this research. The results of the literature search were thematically derived and organised. Literature from former British colonies was given priority and the rationale for this approach will be discussed. The key themes that emerged centred around five main concepts:

- Type II diabetes prevalence, prevention and management (including management of complications) in PHC
- Cultural re-affirmation and the development of MHPs
- Evolution of the role, scope of practice, and responsibilities of RNs working in PHC
- PHC landscape, intersectoral collaboration and health promotion
- Eugenics and socio economic determinants of health in relation to health and wellbeing.

Each theme that emerged from the literature was interwoven and together provides the background and context of factors that influence, impact and inform RNs' clinical practice within the PHC environment. For example, Government strategies such as the Primary Health Care Strategy and He Korowai Oranga support the role of RNs within the PHC environment (MOH, 2001: MOH, 2002f). Reorientation of PHC services aims to develop intersectoral collaborative relationships, reduce health inequalities and to address the causes of poor health

status and has provided opportunities for RNs to develop their practice within the PHC environment (MOH, 2001: MOH, 2002f).

Furthermore, over the last twenty years Māori Health Providers have developed culturally competent health services that work with communities to improve health outcomes and the funding and delivery of services for Māori (MOH, 2001). The role of RNs who work for MHPs and the impact of the current PHC structure on RNs' clinical practice is an area that was poorly represented in the literature. Gains have been made and it is important that District Health Boards continue to support further development of MHPs and RNs' clinical practice in a way that is culturally appropriate through funding and contracts that support Māori health and wellbeing.

Additionally, in the literature health inequity and Māori health needs were sometimes represented as being related to race, genetics and increased health needs ignoring the impact of colonisation on socio economic status. A significant amount of genetic research relating to type II diabetes was well represented in the literature. Much of the research focused on indigenous communities and notably none of the research included the context of participants' lives, for example socio economic status therefore the value of findings in relation to RNs' clinical practice may be limited and has potential to be misinterpreted (Busfield, Duffy, Kesting, Walker, Lovelock, 2002; Martini & Welch, 2005; Murphy, Ellard, Hattersley, 2008).

The WHO identified key factors required for a health care system to be responsive to the needs of the community being served. These factors are directly related to this research for example, the health workforce, leadership and governance, health service infrastructure and funding (WHO, 2010a). These key themes were evident in the literature and are related to barriers that contribute to poor health outcomes for Māori. Barriers identified from the literature include cost, access, attitude of health care professionals and cultural appropriateness. This research will contribute to what is already known by exploring the lived experience of RNs who work for Māori Health Care Providers (MOH, 2002e).

There are 240 Māori Health Care Providers that employ RNs. Research indicates that RNs working within the primary health care environment in Aotearoa/New Zealand are under-utilised (Finlayson, Sheridan, Cumming, 2009). Under-utilisation of RNs in the PHC sector is

related to fragmentation of services (Finlayson, Sheridan, Cumming, 2009). RNs clinical nursing practice is frequently limited by the narrow focus of various funding contracts (Leamy, Foureur, Gilbert, 2004; MOH, 2004a; Finlayson, Sheridan, Cumming, 2009). Contractual funding and reporting mechanisms occur within western paradigms and have a strong biomedical focus which may affect RNs' ability to work effectively and holistically with Māori. The contribution RNs make to prevention, treatment and management of type II diabetes in this environment has not been clearly identified from the literature. Exploration of RNs' lived experience within this structural context is an aim of the study.

Literature Search Method

Outline

An extensive computer based search was undertaken through the Otago University Library electronic databases utilising keywords and Boolean search methodology (Anderson & Poole, 2001). Boolean search methodology allows topics to be clearly defined by utilising keywords and in this way a comprehensive and topically relevant search can be undertaken, expanded or refined (Anderson & Poole, 2001). Initially keywords used for the search were “*nurse*” or “*nurse-led*” or “*nurse practitioner*” or “*primary care nurse*” and “*diabetes*” and/ or “*indigenous*” which resulted in extensive results from multiple databases. For example, Cumulative Index of Nursing and Allied Literature (CINAHL) produced 9,800 results which demonstrated an unfocused approach and unmanageable number of articles. Many of the articles were irrelevant.

The search was further refined and undertaken using keywords “*nurs**” and “*primary health care*” or “*primary care*” and/or “*indigenous health care*” and/or “*primary care providers services*” and /or “*type two diabetes*” or “*metabolic syndrome*” or “*insulin resistance*”. Using Boolean search methods the search was further defined by and/or “*Māori*” or “*indigenous*” or “*Metis*” or “*First Nations*” or “*Native*” or “*Aborigine*” or “*Inuit*” or “*Torres Strait*” (Anderson & Poole, 2001).

The search included alternative terms for example “*nurse led*” or “*primary health care nurse*” and each was searched separately and concepts then combined. Further articles were

sourced through related articles listed on databases. The search was replicated in multiple databases available through the Otago University Library and provided the context for this research. The literature was drawn mainly from nursing and medical databases. Electronic database searches were undertaken using CINAHL, The Cochrane Collaboration, MEDLINE, Proquest, Pubmed, Te Puna Database (NZ).

Additionally, hand searches of journals and literature were undertaken. Key article reference lists were reviewed to identify and access other relevant articles. Grey literature including MHP reports, reports from other sources such as, fact sheets, conference proceedings, and other documents from International and National Organisations and Governments were accessed and reviewed in relation to the aims of the research.

Following completion of the literature search, the literature was thematically analysed and five key categories emerged from this process. Although each of the categories were derived from distinctive bodies of literature they are interwoven and linked to each other in relation to the research question. Articles originating from former British colonies were given priority as many historical issues facing indigenous populations would be common in these countries, namely: USA, Canada, Australia, Pacific Nations and New Zealand.

Type II Diabetes

Background

Another key theme that emerged from the literature review related to type II diabetes, in particular much of this research was related to indigenous peoples. RNs have a pivotal role in education, prevention and management of type II diabetes and associated complications. Much of RNs' clinical practice and responsiveness to the needs of the community is dependent upon the structure of health care services. The WHO estimates that currently more than 285 million people worldwide are living with diabetes and the incidence of diabetes is estimated will double to more than 560 million by 2030 (Bird, 2002; Wild, Rogli, Green, Sicree, King, 2004; WHO, 2007; Diabetes Prevention Program Research Group [DPPRG], 2009).

Furthermore, it is likely that these figures provide an underestimation of future diabetes prevalence. The estimated rise for the year 2000 was 154 million but the increase was 11% higher than that, creating a significant global burden of disease (Wild, Rogli, Green, Sicree, King, 2004; WHO, 2009). Around 90% of the diabetes burden of disease is caused by type II diabetes (WHO, 2009; DPPRG, 2009). Indigenous populations worldwide have a much higher incidence of type II diabetes than other members of the population and this is directly linked to the effects of colonisation (Bird, 2002; UN, 2006; Blunden & Davis, 2006; CSDH, 2007; Settee, 2008).

By way of an example, obesity, type II diabetes, metabolic syndrome and cardiovascular disease are more common in Native Canadians than Canadians of European descent and this statistic is reflected in other indigenous populations who have been colonised (Anthony, et al, 2003). In Australia, Aboriginal and Torres Strait Islander communities have the highest incidence of type II diabetes in Australia including adolescents (Hotu, Carter, Watson, 2004; Australian Institute of Health and Welfare, 2005). Changes in lifestyle and eating habits lead to the increase in childhood obesity, which parallels with the incidence of type II diabetes in this age group (Craig, Femia, Broyda, Lloyd, Howard, 2007). The recent global increase of type II diabetes in children and adolescents is closely linked to environmental factors. Significantly this increase has been associated with the loss of traditional lifestyles and culture in aboriginal communities in Australia (Craig, Femia, Broyda, Lloyd, Howard, 2007).

Similarly, in Aotearoa/New Zealand statistics reflect international evidence that the world's indigenous populations experience a disproportionate burden of type II diabetes (MOH, 2002c; NZGG, 2003; MOH & University of Otago, 2006; Naqshbandi, Harris, Esler, Antwi-Nsiah, 2009). The incidence of obesity, type II diabetes and metabolic syndrome are expected to rise significantly over the next 20 years with Māori, Pacific people and those who live in low socio economic areas having the greatest increase (MOH, 2002c; NZGG, 2003; Gentles, et al, 2007).

The prevalence of diabetes across the population of Aotearoa/New Zealand is currently estimated at around 4 % (MOH, 2010b). The chronic complications of diabetes are cardiovascular in origin. Reducing the incidence and impact of diabetes is one of 13 priority objectives for population health in the New Zealand Health Strategy. In the 10 years since the introduction of the New Zealand Health Strategy there has been little impact on prevention of

type II diabetes or associated complications. Current statistics show that type II diabetes and associated complications continue to increase in the population (MOH, 2000a; Robson, Harris, 2007).

Diabetes

Diabetes is defined as an abnormality in the regulation of blood glucose levels leading to hyperglycaemia. It is a significant cause of ill health and premature death affecting approximately 200,000 people in New Zealand (Martini, 2006; McCance & Huether, 2006; Marieb, 2009; MOH, 2010b). Secretion of the hormones insulin and glucagon occurs in response to dietary intake, especially carbohydrate (Martini, 2006; McCance & Huether, 2006; Marieb, 2009).

There are other hormones and enzymes involved in the metabolism of carbohydrate and fat and therefore blood glucose regulation. These are adiponectin, resistin, leptin, gastrin, ghrelin and cortisol (Martini, 2006; McCance & Huether, 2006; Marieb, 2009). Current understanding of these hormones in the aetiology of type II diabetes is poorly understood but research has linked abnormal production of these hormones to environmental factors. This relationship will be discussed later in this chapter.

In order to understand this relationship, it is first necessary to understand the basic function of these hormones. Adiponectin is a hormone excreted by adipose tissue (fat cells) and is linked to the metabolism of lipids and glucose and influences the body's response to insulin. Resistin has been implicated in insulin resistance and obesity. Resistin is produced by adipose tissue and acts on skeletal muscle, fat and muscle to reduce sensitivity to insulin (Steppan, Bailey, Bhat, Brown, 2001; Martini, 2006; McCance & Huether, 2006; Marieb, 2009).

Leptin is produced by adipose tissue and has a central role in fat metabolism. Leptin acts in the brain to suppress appetite and increase energy expenditure. Leptin receptors (LEPRs) have been implicated in obesity, type II diabetes and metabolic syndrome (Martini, 2006; McCance & Huether, 2006; Marieb, 2009; Jeon, et al, 2010). Ghrelin acts in the brain to stimulate hunger and increase food intake and heightens the craving for high-calorie foods (Martini, 2006; McCance & Huether, 2006; Marieb, 2009). These hormones add to the

complex picture of obesity, metabolic syndrome and type II diabetes, again the significance of environmental factors on production of this hormone is poorly understood.

The stomach secretes the hormone gastrin to stimulate the release of hydrochloric acid (HCl). The surgical treatment of morbid obesity by gastric bypass surgery leads to dramatic improvement in the co-morbidity status of most patients with type II diabetes. The improvement for a significant number of patients occurred prior to weight loss. Gastrin may be implicated and research is ongoing in this area, which may be of high clinical significance (Schauer, Burguera, Ikramuddin, Cottam, et al, 2003; Martini, 2006; McCance & Huether, 2006; Lee, Wang, Lee, Huang, et al, 2008; Marieb, 2009).

The adrenal cortex produces the steroid hormone cortisol which has a direct effect on carbohydrate metabolism and other functions. Functions include increasing appetite, promotion of body fat deposits, potentiate some of the effects of adrenaline and noradrenaline (fight or flight response). Cortisol excretion is stimulated by any stress and is implicated in the development of type II diabetes and metabolic syndrome (Martini, 2006; McCance & Huether, 2006; 2008; Marieb, 2009). This is significant in relation to environmental factors such as racism, socio economic status and health inequity.

The focus of this study is type II diabetes and includes insulin resistance (pre-diabetes) and metabolic syndrome (WHO, 2008). Type II diabetes is characterised by insulin resistance in target tissue at a cellular level causing a sub-optimal response and raised blood glucose. Insulin acts on receptor sites on the cell membrane and facilitates the movement of glucose into the cell where it is required to produce ATP for cell energy and to prevent cell death. Research shows that compensatory mechanisms increase insulin production resulting in hyperinsulinaemia for many years prior to the development of type II diabetes. Adipose (fatty) tissue is resistant to insulin and is an important component of this complex condition (McCance & Huether, 2006).

Additionally, Metabolic Syndrome is an important component to consider when working with individuals who are diagnosed with type II diabetes as this is associated with increased cardiovascular risk. Metabolic Syndrome is not a disease but a cluster of symptoms including central obesity, impaired glucose tolerance/insulin resistance, dyslipidemia and hypertension defined as $\geq 130/85$ mmHg or above. Type II diabetes may or may not be present but the risk

of type II diabetes and cardiovascular complications are very high in individuals who have Metabolic Syndrome. The WHO defined the syndrome (also known as Syndrome X) as the co-occurrence of any three of the above risk factors. This criteria was re-defined in 2004 and includes waist circumference greater than 40 inches in men or greater than 35 inches in women (McCance & Huether, 2006).

Therefore diagnosis, management and outcome measurements of type II diabetes have a strong evidence base and biomedical focus. The normal fasting blood glucose level is 4-6mmol fasting. If the result is 6-7mmol this requires a modified glucose tolerance test and if 7mmol or over on two consecutive blood tests this is diagnostic of diabetes (McCance & Huether, 2006). Glucose is efficiently transported into the cells from the vascular system and any excess attaches to haemoglobin. This is called glycosylated haemoglobin or HbA1c. This is a very accurate way to assess blood glucose levels as red cells circulate for 8 -12 weeks before they are replaced. An HbA1c target of 7.0% is acceptable to reduce the risk of microvascular and macrovascular disease (McCance & Huether, 2006; Scottish Intercollegiate Guidelines Network [SIGN], 2010).

Furthermore, raised HbA1c in diabetes is associated with eye conditions including cataracts and retinopathy. Microvascular damage causes retinal ischemia due to blood vessel changes and is an important cause of avoidable loss of vision. Diabetic retinopathy is present at diagnosis for a significant proportion of people with type II diabetes and is associated with HbA1c levels over 7% (McCance & Huether, 2006; MOH, 2008). Diabetic retinopathy is closely associated with nephropathy. Nephropathy affects around 40% of people with type II diabetes and is the most common cause of end stage renal disease. The onset begins five to eight years post diagnosis and is asymptomatic in the early stages. Renal impairment accelerates retinopathy and is an independent risk factor for coronary artery disease (McCance & Huether, 2006; MOH, 2008).

Similarly, Coronary Artery Disease (CAD) is a common complication of type II diabetes. The risk is linked to duration from diagnosis regardless of how well diabetes is controlled. Myocardial infarction (MI) is the cause of death in 20% of diabetics. Erectile dysfunction (ED) and cardiovascular disease (CVD) share the same pathophysiology and a 15 year prospective study demonstrated that ED is associated with increased mortality in association with CVD disease. ED is common in men who have diabetes affecting 35-75% of male

diabetics. Further complications that are directly associated with cardiovascular complications are ischemic stroke which is twice as common in diabetics and Peripheral Artery Disease (PAD) (McCance & Huether, 2006; Araujo, Trivison, Ganz, Chiu, et al, 2009; Diabetes UK, 2010).

Peripheral Artery Disease (PAD) and Peripheral Vascular Disease (PVD) are leading causes of gangrene and amputation in people with type II diabetes and the five year survival rate post-amputation is around 40%. Diabetic peripheral neuropathy is closely associated with this process. Diabetic neuropathies are the most common complication of diabetes and are poorly understood. Neuropathies can be peripheral or autonomic and are frequently under diagnosed (McCance & Huether, 2006; Diabetes UK, 2010). Indigenous populations demonstrate a higher rate of complications at younger ages (Hannon, Gunor, Arslanian, 2006). This is associated with a higher prevalence of metabolic syndrome, obesity, dyslipidemia and hypertension leading to a higher incidence of cardiovascular complications and poorer health outcomes (McCance & Huether, 2006; Ley, Harris, Mamakeesick, Noon, et al, 2009; Marieb, 2009).

For example, in Aotearoa/New Zealand microalbuminuria was present in 14% of newly diagnosed type II diabetics in a Māori community. Statistics demonstrate a higher incidence and severity of microvascular and macrovascular complications than the non-Māori population (Hannon, Gunor, Arslanian, 2006; Robson & Harris, 2007). Mortality rates for people with type II diabetes are high and early detection and treatment of CVD complications associated with diabetes are critical to reduce these rates (Dawson, Willis, Florkowski, Scott, 2008). Māori have the poorest cardiovascular health outcomes in Aotearoa/ New Zealand and diabetic complications are a significant contributory factor to these health outcomes. A Māori specific Cardiovascular Health Action Plan was developed in 2004, however, statistics demonstrate that disparities persist and type II diabetes is a significant contributing factor to cardiovascular disease (Bramley, Riddell, Crengle, Curtis, et al, 2004; Robson & Harris, 2007).

Diabetes Management

The WHO (2002a) recommends structured, planned care for effective management of long term conditions including type II diabetes. Health improvements reduce the burden of ill health on individuals and society. Internationally, evidence-based guidelines inform clinical practice and provide a consistent approach to improve health outcomes and quality of care (NZGG, 2003; NZGG, 2005; Canadian Diabetes Association, 2008; SIGN, 2010).

Government policy and national guidelines encourage nurses in primary health care facilities to support individuals to make positive lifestyle changes, develop skills to manage their diabetes and reduce complications (Wagner, Austin, Von Korff, 1996; Lorig, Sobel, Stewart, Brown, et al, 1999; Wells & Wiltshire, 2005; National Health Committee, 2007; McBride, 2009; Funnell, Brown, Childs, Hass, et al, 2010). RNs who work for Māori Health Care Providers are in an ideal position to develop a strong therapeutic relationship and work with individuals, whanau, hapu and iwi to make positive lifestyle choices (Tipene-Leach, Pahau, Williams, Abel, et al, 2009).

Self-management of type II diabetes is an effective way to improve clinical outcomes and quality of life (NZGG, 2003; Wells & Wiltshire, 2005). Education and support must be ongoing to facilitate development of knowledge and effective self-management (Tipene-Leach, Pahau, Williams, Abel, et al, 2009). A good example of this approach is the Flinders Model which assists health care professionals to systematically assess, plan and work in partnership with individuals to develop patient knowledge, expertise and self-management skills (Battersby, Ask, Reece, Markwick, Collins, 2001; Funnell, Brown, Childs, Hass, et al, 2010). Lifestyle changes are effective in reducing weight, improving glycaemic control and reducing cardiovascular complications in type II diabetes (Riddle, 2000; McInnis, 2003; Hansen, Dendale, Jonkers, Beelab, et al, 2009; Dunstan, Barr, Healy, Salmon, et al, 2010).

Due to the progressive nature of type II diabetes, aggressive pharmacological intervention is identified as a key component in the management of type II diabetes. It is essential that combinations of therapies with different modes of action are used to reach and maintain target levels to prevent complications (UKPDS, 1998a; DOH, 2000; Yusef, Sleight, Pogue, Bosch, et al, 2000; Stratton, Adler, Neil, Matthews, et al, 2000; Brenner, Cooper, de Zeeuw,

Keane, 2001; DOH, 2001; Gerstein, 2002; NZGG, 2003; NZGG 2005; National Health and Medical Research Council Clinical Trials Centre [CTC], 2005). In addition to pharmacological intervention, active screening for cardiovascular complications is a component of structured management.

In Aotearoa/New Zealand, free screening in PHC is available to all people who have type II diabetes. The Get Checked programme commenced in 2000 and includes an annual review of blood and urine tests; pulse (in those aged over fifty years old), BP; bi-annual retinal screening, foot examination, medication and lifestyle review (MOH, 2010c). The success of the programme is less than optimal with 66% of non-Māori and only 37% of Māori receiving this free service (MOH, 2006b). Currently, this service is under review and discussion is underway that may affect continuation of funding.

Further issues have been identified for Māori who do access the ‘Get Checked’ programme. Only 57.7% of Māori accessing the programme had an HbA1c below 8% compared to 77% of non-Māori (MOH, 2006b). Māori also have a much higher incidence of complications and hospital admissions (Jeffreys, Wright, Mannetje, Huang, Pearce, 2005; MOH, 2006b; Robson & Harris, 2007). Failure to provide a service that is acceptable and accessible affects health outcomes and this is reflected in statistics that show complications are disproportionately high in Māori (NZGG, 2003; Gentles, Metcalf, Dyll, Sundborn, Schaaf, Black, Scragg, Jackson, 2007). Therefore, exploration of how the current system supports nurses to work holistically with Māori will add to existing knowledge and has the potential to improve access and health gains for Māori.

Ethnicity, personal responsibility, service delivery and inequity

Additionally, themes have emerged in the literature such as ethnicity and lifestyle as suggested reasons why Māori are more susceptible to developing conditions including type II diabetes and this is then represented in terms of increased health needs of Māori not as an inequity (Howden-Chapman & Tobias, 2000; Durie, 2003; Paradies, Harris, Anderson, 2008). There are potential issues with current policy and practice in the management of type II diabetes that emphasises individual behavioural changes. Personal responsibility is promoted as the key to prevention, effective management of diabetes and complications (NZGG, 2003).

Therefore, there is potential for health care professionals to hold the individual responsible for developing diabetes and associated complications through lifestyle choices. This attitude may affect access to healthcare and effective pro-active management of this disease (DOH, 2000; Stratton, Adler, Neil, Matthews, et al, 2000; DOH, 2001; NZGG, 2003; NZGG 2005). As previously discussed there are many complex factors that contribute to an individual developing type II diabetes such as, a genetic predisposition and the chronic stress hormone cortisol (Martini, 2006; McCance & Huether, 2006; Marieb, 2009).

The compelling disparities in Māori health outcomes have generally become accepted by society including Māori and the issues that surround acceptance of these explanations are complex (Paradies, Harris, Anderson, 2008). Common misconceptions are sometimes promoted by the press, accepted and embraced by the general public, Government agencies, health care professionals and Māori themselves in explaining the underlying causes of poor health outcomes for Māori (Howden-Chapman & Tobias, 2000; Durie, 2003; Robson, Harris, 2007; Paradies, Harris, Anderson, 2008). These themes and issues are mirrored in relation to indigenous communities internationally (Jeffreys, Wright, Mannetje, Huang, Pearce, 2005; Broome & Broome, 2007; Cribbes & Glaister, 2007; Barton, 2008).

Notably, Australian Government recommendations for improving Aboriginal health in Australia has been difficult to apply in Aboriginal communities and the reasons for this are complex and as yet have not been well researched (Cribbes & Glaister, 2007). These findings highlight the need for community driven culturally appropriate programmes. Indigenous knowledge must be utilised in indigenous diabetes programmes and literature to ensure culturally competent care is provided (Jeffreys, Wright, Mannetje, Huang, Pearce, 2005; Broome & Broome, 2007; Barton, 2008).

Baxter (2002) highlights the need for innovative culturally appropriate solutions to improve access and health outcomes for Māori with a diagnosis of type II diabetes. Strategies for effective prevention, detection and management of type II diabetes must include the wider issues of socio economic, institutional and structural barriers that currently exist in Aotearoa/New Zealand (MOH, 2006). A good example of a culturally appropriate approach is the Ngāti and Healthy Programme which raises awareness of diabetes in the local community (Coppell, Tipene-Leach, Pahau, Williams, et al, 2009).

The Ngāti and Healthy Programme works with the local community to reduce risk factors through lifestyle choices. This demonstrates the importance of working in partnership and identifies community involvement as a key feature of sustainable interventions. The programme is ongoing and evaluation has shown that participation reduced insulin resistance prevalence after two years in those who had made significant and sustained lifestyle changes (Coppell, Tipene-Leach, Pahau, Williams, et al, 2009).

Clinical Management and Risk Assessment

In Aotearoa/New Zealand there are guidelines that guide RNs' clinical practice for effective management of diabetes and cardiovascular disease. The guidelines are supported in Primary Health Care by a computer IT clinical decision tool (PREDICT) which is based on the Framingham CVD risk prediction tool and CVD risk can be calculated for a five year period. Cardiovascular risk assessment is a component of the structured management of type II diabetes (NZGG, 2005; Wells & Whiltshire, 2005). However, the Framingham CVD risk assessment tool may underestimate risk for some groups of the population who were not represented in the original research (NZGG, 2003; Clarke, Gray, Briggs, Farmer, et al, 2004; NZGG, 2005; Wells & Wiltshire, 2005).

Furthermore, the Framingham risk assessment tool was not evaluated within a wider representation of the population prior to being included in international guidelines. In order to address the issue of underestimation of risk, those members of the population where incidence of CVD has demonstrated underestimation of risk, must be moved up one risk category by adding on 5%, to their CVD risk calculation. Māori and Pacific peoples are included in this group (NZGG, 2005; Wells & Whiltshire, 2005). There is a lack of clarity about how the additional 5% was calculated or whether this was trialled and evaluated for accuracy prior to being included in the guidelines for CVD or as a component of the PREDICT assessment (NZGG, 2003; NZGG, 2005; Wells & Wiltshire, 2005).

Another component of structured management is reaching and maintaining identified target levels for blood pressure, lipid profile and HbA1c to reduce the risk of complications (Department of Health [DOH], 2000; DOH, 2001; NZGG, 2003). This requires a

combination of lifestyle and pharmacological interventions (DOH, 2000; Stratton, Adler, Neil, Matthews, et al, 2000; DOH, 2001; NZGG, 2003; NZGG 2005). The United Kingdom Prospective Diabetes Study (UKPDS) clearly demonstrated that CVD complications and the progressive nature of type II diabetes require proactive management and regular review in order to reach and maintain target levels and prevent complications (Stratton, Adler, Neil, Matthews, et al, 2000).

The UKPDS prospective study followed 3867 newly diagnosed type II diabetic patients for 20 years. Within 10 years of diagnosis 30% of type II diabetics had developed a clinical complication. Assessment of the incidence of microvascular and macrovascular endpoints of diabetes at increasing HbA1c or systolic blood pressure levels showed a log-linear relationship indicating that any reduction in glycaemia or blood pressure would be advantageous. The UKPDS recommended the following target levels for optimal management of type II diabetes: HbA1c at or below 7%; blood pressure at or below 130/80mmHg and lipid profile within normal ranges. A raised low density lipoprotein (LDL) cholesterol and low high density lipoprotein (HDL) cholesterol are additional risk factors for myocardial infarction (UKPDS, 1998; Stratton, Adler, Neil, Matthews, et al, 2000; Manley, 2003).

The UKPDS clearly demonstrated that activity and dietary changes were effective components in the management of type II diabetes but also noted that a very small number successfully lost weight or achieved improvement in glycaemic control. Only a small number of those who were successful were able to sustain these changes demonstrating the need for pharmacological intervention to achieve target levels of HbA1c, BP and lipid profile (Riddle, 2000). The difference in outcomes clearly demonstrates the importance of acknowledging the wider determinants of health, community involvement and working in partnership when implementing programmes for prevention and management of type II diabetes.

The UKPDS Risk Engine calculates risk for either a 10 year period or can be utilised to calculate lifetime risk. The risk engine is a type II diabetes specific risk calculator based on 53,000 patient years of data from the study. The UKPDS risk engine provides risk estimates and 95% confidence intervals, in individuals with type II diabetes not known to have heart disease for: non-fatal and fatal coronary heart disease, fatal coronary heart disease, non-fatal and fatal stroke. The calculations are based on current age, sex, ethnicity, smoking status,

presence of atrial fibrillation (AF), HbA1c, systolic blood pressure, total cholesterol and HDL cholesterol levels (Clarke, Gray, Briggs, Farmer, et al, 2004).

Gudzer et al (2005) stated that the Framingham and UKPDS risk engines are moderately effective at identifying those at high-risk but are not accurate at quantifying risk. The Fremantle Diabetes Study (FDS) was a community-based longitudinal observational study for the period 1993-2006 and included 815 patients who were initially cardiovascular disease free. Results clearly demonstrated discrepancies in CVD risk assessment for people with a diagnosis of type II diabetes and highlighted the issue with cardiovascular risk assessment in individuals with type II diabetes (Davis, Colagiuri, Davis, 2009).

The FDS follow-up demonstrated that the UKPDS risk equations for coronary heart disease slightly overestimated the number of total CVD events and underestimated the number of fatal stroke events. The Framingham risk equations underestimate cardiovascular events for people with a diagnosis of type II diabetes. Overall the UKPDS stroke risk equations performed well, but the UKPDS and Framingham CVD risk equations were proven unsuitable for predicting risk in Australians with type II diabetes (Davis, Colagiuri, Davis, 2009).

Therefore, national guidelines may need revision and one might argue that all individuals with a diagnosis of type II diabetes should automatically be classified as high risk and excluded from cardiovascular risk assessment to prevent underestimation and undertreatment. The problem with these risk prediction tools is that lifetime risk may not be included in calculations which may lead to under treatment or underestimation of the actual risk over a lifetime for people with type II diabetes. This raises the question of whether people with a diagnosis of type II diabetes should be included in CVD risk assessment guidelines. There is some confusion and discrepancy in cardiovascular risk calculation for people with type II diabetes which adds to the potential for underestimating risk and under treatment (NZGG, 2003; NZGG, 2005 Gudzer, et al, 2005; Davis, Colagiuri, Davis, 2009). This lack of clarity may also create difficulty for RNs working in clinical practice when utilising these assessment tools. Next cultural re-affirmation and Māori Health Provider development will be explored in relation to Government Policy and the role of RNs.

Cultural Re-affirmation and Māori Health Provider Development

Colonisation and Marginalisation

A significant theme that emerged from the literature search related to the development of Māori Health Providers. The effects of colonisation are not a past historical occurrence but a current, evolving event and international statistics reflect the ongoing negative impact on indigenous populations including Māori (WHO, 2007a). MHPs and RNs' clinical practice occur within a dominant European health service structure which influences and impacts on health care delivery in Aotearoa/New Zealand.

The consequences of colonisation are significant and are still evident many generations after the event. There are common issues affecting populations who have been colonised. The UN notes that despite their diversity colonised populations frequently face loss of land, loss of cultural identity, discrimination, poverty, unemployment, poor working conditions, low wages, poor schooling, high rates of imprisonment and poor health (Steer, 1996; Iveson, Patton, Saunders (Eds), 2002; UN, 2005; UN, 2006).

Indigenous people have frequently been oppressed by policies that assimilate individuals into the culture of the dominating society (Moran, 2000; Bryder & Dow, 2001; WHO, 2007). Human rights that include participation, non-discrimination and self-determination are critical components to attain improved health outcomes for indigenous people (Tauli-Corpuz, 2007). The Mataatua Declaration was developed by indigenous peoples in 1993 and has been signed by over 500 indigenous nations. This important document underpins the principles of self-determination and highlights concerns regarding the lack of responsiveness of policy makers at local, national and international levels (Mead, 2000).

Indigenous people belonging to nations which were former British and American colonies have experienced a re-affirmation of their cultural heritage. Since the mid 1980s many indigenous peoples have successfully changed Government policy concerning the preservation and promotion of indigenous languages (Blaisdell, 1996; Moran, 2000; Orange, 2009). Language is the most fundamental way that we communicate and is critical for indigenous culture and knowledge retention (MOSD, 2007; Settee, 2008). Official

recognition of indigenous languages through Government policy promotes a socially inclusive society and is an important way to strengthen communities, preserve cultural identity and improve the wider issues that affect health outcomes (Settee, 2008; WHO, 2008).

Cultural Re-affirmation

In Aotearoa/New Zealand the Treaty of Waitangi Act was passed in 1975 and a Tribunal was established to hear Māori claims and to make recommendations based on the principles set out in the Treaty. Legislation began to incorporate the principles of the Treaty in 1986. For example, the Māori Language Board asked the Tribunal to recommend that Te Reo Māori be recognised as an official language in Aotearoa/New Zealand and this was legislated in January 1987 (Orange, 2004; MOSD, 2007). The successful revival of Te Reo Māori in Aotearoa/New Zealand actively strengthens the traditional values of the whanau (family) and acknowledges the kaumatua (elders) as repositories of traditional knowledge (Settee, 2008). Te Reo Māori is a central aspect of cultural participation and identity and in 2006, 24% of Māori reported that they could hold a conversation in Māori (MOSD, 2007).

Cultural identity is also important when looking at the factors that affect the health of individuals and communities (Durie, 2003; Wepa (ed), 2005; WHO, 2010). Government policy developed in consultation with Māori which promotes and values traditional cultural knowledge strengthens communities and is essential for Māori health and wellbeing (Cram, Smith, Johnstone, 2003; Durie, 2003). Māori concepts of health and wellness are defined holistically and reflect the interconnectedness between physical, mental and spiritual well-being and the relationship of individuals to family and the environment (Cram, Smith & Johnstone, 2003). Historically, Māori concepts of health have largely been ignored by successive Government policies and legislation.

Structure of Healthcare - Historical Influences

In 1920 the Dawson Report recognised the importance of PHC and advocated a population based approach for provision of health services in Aotearoa/New Zealand (McWinney, 1998). The pressures that drive Government policy to healthcare reform are cost, efficiency and public expectation (Wilkin, 2002). Thus, Aotearoa/New Zealand began forming its public health system by passing the Social Security Act in 1938 and was the first country in the world to introduce a publicly funded healthcare system (Gauld, 2000; Dew & Kirkman, 2002). The intention to provide a fully funded service was never fully realised as powerful lobbying from General Practitioners (GPs) resulted in the retention of fees for first point of contact services. Additionally, the Social Security Act did not provide health service delivery that acknowledged Māori paradigms of health.

Furthermore, Māori perspectives of health and wellness were at times in direct conflict with the underlying philosophy of the western medical model which was dominated by the concept of physical well-being (Durie, 1999; Mingnone, Bartlett, O'Neil, Orchard, 2007). The lack of provision of culturally appropriate health services continues to be an issue affecting access to health services and health outcomes for Māori (Robson, Harris, 2007). Durie (1999) maintains that Māori models of health value traditional Māori health belief systems and are complementary to western medical practice. Therefore both approaches may be blended in a synergistic way to improve health outcomes for Māori.

Additionally, Aotearoa/New Zealand has followed a small business model of 'first point of contact' health care delivery that is driven by commercial interests and the need to make a profit (Wiklin, 2002; Crampton & Kerse, 2004a). Adopting a business model for health service delivery has led to fragmentation of services and an uneven distribution of health care provision throughout the country (Coulter, 1996; Crampton, Davis, Lay-Yee, 2004). The business model applied to first-point-of-contact service delivery has created financial and cultural barriers that affect access to health services and health outcomes (Coulter, 1996; Crampton, Davis, Lay-Yee, 2004).

Health services have been reorganised four times since 1980 making the New Zealand public health system the most re-structured health system in the world (Gauld, 2003; Crampton &

Kerse, 2004a). The purchaser/provider market orientated model of health care delivery was introduced in 1993. The commercial focus of this model of health care delivery adversely affected health care services and the health status of New Zealanders (Ashton & Press, 1997; MOH, 2000).

Current Government Strategic Direction

In order to address the issues created by the market orientated model of health care, the MOH produced the New Zealand Health Strategy, which provides the framework for the Government's action on health and aims to ensure that health services address inequities in health (MOH, 2000a). The Primary Health Care Strategy followed soon after and was introduced with the aim of reorienting health care services, with a focus on population health to improve access, affordability and health outcomes (Crampton, Davis, Lay-Yee, 2004). The benefit of a population health approach was endorsed and defined by the WHO in the 1978 Declaration of Alma-Ata and embraces the principles of the Ottawa Charter by addressing the wider determinants of health in Government policy (WHO, 1978; WHO, 1986). Government strategic direction strongly influences the clinical practice of RNs in PHC.

Access and disparities in health care have driven the need for health policy reforms on a global scale, creating the opportunity to address indigenous health issues (Wilkin, 2002; Torrisi & Hansen-Turton, 2005). Legislation demonstrates progress of Māori rights including health care provision through changes in Government policy underpinned by the principles of Te Tiriti o Waitangi/The Treaty of Waitangi (appendix1) (Wepa (Ed), 2005; MFAT, 2009). He Korowai Oranga addresses the concept of whanau ora to achieve health and wellbeing within Māori paradigms of health (MOH, 2002a; MOH, 2002b).

Given the opportunity and resources Māori can address their own health issues (Durie, 1999; Hurst & Nader, 2006; Mingnone, Bartlett, O'Neil, Orchard, 2007). In the Wellington Region in 1990, local iwi representatives from Ngāti Toa Rangatira, Te Āti Awa, Ngāti Kahungunu developed a working partnership with Wellington Area Health Board (Te Rūnanga o Toa Rangatira, 2001; Timu-Parata, 2006). This advisory group represented Māori interests and in 1990 secured funding and service contracts to provide health care for their communities (Te Rūnanga o Toa Rangatira, 2001). In 1993, Government policy to improve Māori health was

legislated and forms the basis for the development of Māori health initiatives (Te Rūnanga o Toa Rangatira, 2001; Timu-Parata, 2006).

The Māori Provider Development Scheme (MPDS) was established in 1997 to provide grants to support Māori health providers to establish effective health service provision (CBG, 2009). By 2004 there were 240 Māori Health Care Providers offering a range of services (MOH, 2004a). The Health Funding Authority defined Māori health providers as health providers that have Māori governance and management structures (Te Puni Kōkiri, 2000). These initiatives are successful because cultural beliefs and values underpin the philosophy and management of services that work in partnership with the community being served (Aboriginal Health & Medical Research Council, 1999; McLeenan & Khavarpour, 2004; Torrisi & Hansen-Turton, 2005; Hurst & Nader, 2006; Timu-Parata, 2006).

Over the last twenty years Māori and Iwi providers have successfully delivered services and programmes (Pipi, Cram, Hawke, Hawke, Huriwai, Mataki, Milne, Morgan, Tuhaka, Tuuta, 2004). Gains have been made improving access to appropriate healthcare within Māori concepts of health. An example of Māori health provider success is Ngati Porou Hauora PHO. This organisation provides a holistic service using Mason Durie's Te Pae Mahutonga /The Southern Cross. This Primary Health Care Model is used as a framework for provision of health promotion within Māori paradigms of health (Coppell, Tipene-Leach, Pahau, Williams, et al, 2009).

An initial evaluation of the diabetes services provided by the Ngati Porou Hauora PHO in 2006 found no increase in the incidence of type II diabetes and a reduction in insulin resistance, demonstrating the value of community-based holistic programmes (Coppell, Tipene-Leach, Pahau, Williams et al, 2009). Much of the success reflects local community involvement and a strong Māori governance structure. The role of RNs and the way that the current primary health care system supported RNs within this context was unclear from the literature. Data on this aspect would be valuable to inform clinical nursing practice and enhance the quality of service delivery. Next the role, scope of practice and responsibilities of RNs will be explored in relation to the literature review.

Registered Nurses: Role, Scope of Practice and Responsibilities

Introduction

International evidence shows that nurses who develop an advanced scope of practice working in primary health care provide cost effective, high quality care and contribute to improved access and health outcomes (Mundinger, Kane, Lenz, Totten, Tsai, Cleary, 2000; Leamy, Foureur, Gilbert, 2005; Torissi, Hansen-Turton, 2005; Van Zandt, Sloand, Wilkins, 2008). Research has demonstrated the value of RNs and Nurse Practitioners (NPs) working with vulnerable populations particularly in settings where resources are scarce (Van Zandt, Sloand, Wilkins, 2008). Facilitation of advanced practice is successful when based on professional knowledge, scope of practice and accountability and when unwarranted restrictions are removed (Leamy, Foureur, Gilbert, 2005; Finlayson, Sheridan, and Cumming, 2009; Naylor & Kurtzman, 2010). A number of historical factors influence the current role and scope of practice of RNs and these will be explored in relation to the aims of this research.

Historical Influences and Cultural Competence

Florence Nightingale, founder of the modern nursing profession, trained at the Pastor Theodore Fliedner Christian Hospital School in Dusseldorf. During the Crimean War Nightingale recruited 38 female nurses who accompanied her to the military hospital at Scutari (Straub, 2010; Royal College of Nursing, [RCN] 2010). Conditions were poor, food and medicines were in short supply and hygiene was non-existent. Nightingale reorganised the hospital, established a kitchen and laundry and improved ventilation and sanitation. The death rate fell from 42% to 2% in less than six months (Straub, 2010; RCN, 2010).

On her return to England, Florence Nightingale established the Nightingale Training School at St Thomas' Hospital in London (Straub, 2010; RCN, 2010). Nightingale carefully documented all interventions and kept meticulous statistics. Nightingale's methods such as organisation, prioritisation, documentation, infection control and clinical audit underpin current nursing practice (Straub, 2010; RCN, 2010). Modern nursing is rooted in European military discipline, Christian religious order and hierarchical structure. Nurses must

acknowledge and critically reflect on these historical traditions that influence and impact on nursing culture in order to identify how this influences their own nursing practice (MOH, 2003; Wipa, 2005; Simon, 2006).

Additionally, current clinical nursing practice is underpinned by dominant western health ideologies and structural barriers that may restrict nurses' ability to work in a holistic way with whānau, hapu and iwi (Racine, 2003; Finlayson, Sheridan, Cumming, 2009). The principles of Te Tiriti o Waitangi/ The Treaty of Waitangi provide the pathway to working in partnership with whanau, hapu and iwi to ensure Māori cultural concepts and holistic models of health and wellness are woven throughout clinical nursing practice (MOH, 2003; Wipa (Ed) 2005; Simon, 2006). The Te Tiriti o Waitangi /Treaty of Waitangi is incorporated into health care legislation and describes the special partnership that the Crown has with tangata whenua (McKinney & Smith, 2005).

Cultural Safety

In 1990 the New Zealand Nursing Council incorporated cultural safety into its curriculum assessment processes and more recently the registered nursing practice competencies (Nursing Council of New Zealand, 2009). Cultural safety, the knowledge of kawa whakaruruhau and ti Tiriti/the Treaty provide the foundation that underpins clinical nursing practice (Nursing Council New Zealand, 2009). The reflective process of 'being culturally safe' enables nurses to recognise their values and beliefs and how this may affect relationships with clients (Ramsden, 2002; MOH, 2003; Wipa (Ed) 2005; Simon, 2006).

There are important issues that nurses need to consider when addressing health inequalities in vulnerable and marginalised populations. For example, grouping people according to social indicators or by ethnicity may augment discriminatory practices and paternalistic approaches (Racine, 2003; Wipa (Ed), 2005). Nurses have a responsibility to develop skills in communication and culturally safe nursing; otherwise power inequities can occur and affect health outcomes and access to culturally appropriate health care (Southwick, 1994; Racine, 2003; Torres-Parodi, 2004; Wepa, 2005; Finlayson, Sheridan, Cumming, 2009; Nursing Council of New Zealand Nursing Council, 2009).

The current primary health care environment encourages nurses to develop holistic care using a population approach (MOH, 2002b). The Primary Health Care Strategy and He Korowai

Oranga provide a framework for primary health care nurses to work in partnership with the community to develop models of service delivery that are culturally appropriate and responsive to the needs of the local community (MOH, 2000b; MOH, 2001; MOH, 2003b; Sloan & Groves, 2005; Mackay, 2008). Development of innovative nursing practice is essential to improve access and health outcomes and to reduce health inequities (MOH, 2003b; MOH, 2005, MOH, 2005a). Evidence is emerging internationally and in the New Zealand context that supports the role of primary health care nurses in improving health outcomes and cost effectiveness (Finlayson, Sheridan, Cumming, 2009).

Contribution of RNs to Primary Health Care

International evidence confirms nurses have the ability to contribute to PHC particularly in the areas of health care access and cost effectiveness (Lang, Sullivan, & Jenkins, 1996; Horrocks, Anderson, Salisbury, 2002; Laurant, Reeves, Hermens, Braspenning, et al, 2004). In the USA, community nursing centres provide valuable first level care for vulnerable populations and many of these centres have strong links with academic institutions (Nehls & Vandermause, 2004; Torrisi & Hansen-Turton, 2005; Gaines, Jenkins, Ashe, 2005). Successful factors identified are collaboration with the community and a patient-nurse relationship that reflect holistic consumer-oriented health care (Krothe, Flynn, Ray & Goodwin, 2004; Nehls & Vandermause, 2004; Torrisi & Hansen-Turton, 2005).

Furthermore, research has demonstrated that nurse-led care is cost effective and produces high levels of patient satisfaction (Kinnersley, Anderson, Parry, Clement, et al, 2000; Mundinger, Kane, Lenz, Totten, et al, 2000; Horrocks, Anderson, Salisbury, 2002; Staines, 2006). Nurses provide more health advice, longer consultations and achieve higher quality care with good health outcomes for patients (Kinnersley, Anderson, Parry, Clement, et al, 2000; Mundinger, Kane, Lenz, Totten, et al, 2000; Horrocks, Anderson, Salisbury, 2002). Patient health outcomes are similar for doctors and nurses in a range of PHC services that encompass a wide variety of nursing roles (Brown & Grimes, 1995; Kinnersley, Anderson, Parry, Clement, et al, 2000; Mundinger, Kane, Lenz, Totten, et al, 2000; Horrocks, Anderson, Salisbury, 2002; Torrisi & Hansen-Turton, 2005).

Evolving models of nursing practice in Aotearoa/New Zealand show the potential for collaborative community focused nursing care to improve health outcomes for New Zealanders (Litchfield, 2004; MOH, 2005a; MOH, 2005b). These initiatives are aligned with Government strategic approaches that aim to promote health and wellbeing and reduce disparity (MOH, 2000; MOH, 2001). Examples of successful nurse-led care have been highlighted by the New Zealand Nurses Organisation (NZNO) and MOH publications (NZNO, 2004; NZNO, 2005; MOH, 2005a; MOH, 2005b).

In contrast Finlayson, Sheridan and Cumming (2009) evaluated the effectiveness of the PHC Strategy and highlighted a number of significant barriers that affect organisations and RNs' ability to work holistically with individuals in primary health care. Barriers such as the contract, funding structures and lack of physical resources, for example room space, impact on RNs' ability to work effectively with individuals and families (Gauld & Mays, 2006). These findings have implications for policy and practice in the PHC sector and this is an important area to explore in order to identify what facilitates or creates barriers for RNs who work for MHPs. There is potential to contribute to positive change by supporting the evolving role and scope of practice of RNs. The identification of barriers and facilitators for RNs working in the current environment is essential in order to support RNs to be effective and responsive to the needs of the community.

Evolving Role and Scope of Practice of RNs

In Aotearoa/New Zealand some RNs have developed their role to an advanced level supported by legislation. There are only a small number of Nurse Practitioners (NPs) and very few are employed in PHC. Practice Nurses identify the potential for the NP role in PHC and many have expressed interest in progressing their role and scope of practice to attain this qualification (Finlayson, Sheridan, and Cumming, 2009). There is the potential for RNs working for MHPs to attain this qualification, which can potentially improve their ability to work holistically, increase service flexibility and capacity (NZNO, 2010; Torrisi, Hansen-Turton, 2005). Research demonstrated that RNs working in PHC in Aotearoa/New Zealand are under-utilised and exploration of facilitators and barriers for RNs working for Māori providers may identify how RNs can be supported to develop and expand their role and attain NP status (Finlayson, Sheridan, and Cumming, 2009).

Government policy in the UK supports the development of advanced nursing practice in PHC. The role of RNs has evolved supported by changes in legislation, reorientation of services and funding via the General Medical Services (GMS) 2004 contract (Greer, 2005). RNs are highly skilled and over the past twenty years have successfully extended their scope of practice and nurse-led services. Many RNs in PHC have prescribing rights within their scope of practice. RNs in PHC facilities deliver complex care especially in long term conditions including type II diabetes. They are supported by Health Care Assistants (HCAs) who undertake routine tasks such as influenza vaccinations, health promotion activities, electrocardiograms (ECGs), spirometry and programmes that support smoking cessation including nicotine replacement therapy (NRT) (Robinson, 2009).

An important aspect of this success is accessibility. The British system is a tax-funded Government agency that provides access to all citizens, including free PHC services. There is a small fee for prescriptions and additional charges apply for dental and optometry services. PHC is where most preventive health interventions occur and this can potentially reduce or prevent expensive hospital treatment (WHO, 2008b; Shah, 2009). There may be some value for Government policy makers in New Zealand to undertake research into the cost benefit associated with accessibility and early diagnosis and intervention. This aspect is important to consider in Aotearoa/New Zealand in order to address inequities in health status, late presentation at diagnosis and fragmentation of PHC services due to many different funding and contract streams. It is unclear from the literature how this impacts on RNs working for MHPs.

Similarly, in the USA, a successful mobile nurse-managed service that meets the complex needs of a vulnerable inner city population involved a partnership of a nursing academic institution and community-based organisations. The service provided screening, health promotion and chronic disease management programmes for at-risk populations. Factors identified as contributing to the success of the research were adequate funding, community involvement, and culturally sensitive appropriate healthcare (Torrisi & Hansen-Turton, 2005; McNeal, 2008).

Badger, McNiece, Gagan (2000) identified similar factors that contributed to the success of a nurse-managed PHC service. Key factors were accessibility, advanced nursing practice and clinic development appropriate to the needs of the community. In addition the National

Nursing Centres Consortium (NNCC) is an innovative model that serves vulnerable underserved populations to eliminate health disparities (Torissi, Hansen-Turton, 2005). The NNCC works outside of mainstream health services and in partnership with the community that they serve to provide comprehensive holistic care to vulnerable, underserved and uninsured populations throughout the USA (Hansen-Turton, Kinsey, 2001).

Notably, many nurse-managed health centres in the USA have strong links with academic institutions. Nurse-managed, community driven health centres provide a quality clinical experience for students, and have close links with faculty (Nehls, Vandermause, 2004; Torissi, Hansen-Turton, 2005; Day, Arcus, 2006). Factors that contribute to the success of these nurse-managed health centres are the use of a community development model as well as collaboration with the community and other agencies (Krothe, Flynn, Ray, Goodwin, 2000; Gaines, Jenkins, Ashe, 2005; Newman, 2005; Day, Arcus, 2006). It is unclear how RNs working for Māori providers are supported to work collaboratively with other agencies to provide a holistic service, although the whānau taskforce identified the need for this approach in order to work holistically with whānau (Durie, Cooper, Grennell, Snively, Tuaine, 2010).

Likewise, in Canada a partnership between a First Nation (FN) community, Government, health care provider and researchers integrated biomedical and traditional healing models to provide effective, appropriate education, screening and management programmes. Key factors were identified that contributed to the success of these initiatives. The initiatives were holistic, community driven and community based, building community capacity and empowerment (Toth, Cardinal, Moyah, Ralph-Campbell, 2005). Another community based service was provided by advanced practice nurses and incorporated traditional knowledge to provide a holistic service. The research identified that promoting culturally competent care for diabetes is critical to address health inequalities of indigenous populations and an exploration of RNs' experience may assist understanding of how this could be achieved in Aotearoa/ New Zealand (Barton, 2008).

In Australia, a successful initiative to identify individuals with undiagnosed type II diabetes and to screen for CVD was undertaken in an indigenous community. The initiative identified a significant number of people with type II diabetes and/or at risk of CVD and a follow up noted that half of those identified had attended their health care provider for treatment. Further investigation to identify why 50% of participants did not follow up with their GP was not undertaken and may have revealed issues related to cost and cultural appropriateness of

these services. Exploring this aspect of research results would have been very valuable to develop an understanding of the barriers to seeking healthcare in this community and may have offered possible solutions (Oster, Ralph-Campbell, Connor, Pick, Toth, 2010).

Similarly, statistics in Aotearoa/ New Zealand demonstrate that Māori continue to have poor health compared to non-Māori. RNs may be able to identify barriers and facilitators within the current system that affect access and their ability to work with individuals and whānau to improve health outcomes (Day, 2002c; New, Mason, Freemantle, Teasdale, et al, 2003; Day, 2004; Courtenay, Stenner, Carey, 2010). There are a number of examples of successful culturally appropriate nurse-led services (Manchester, 2003; O'Connor, 2005). Rural and remote communities provide the opportunity for innovative nursing practice to meet the needs of underserved communities. A remote community in the North Island has a mobile nurse-led health clinic that provides an extensive service including health promotion, screening and chronic disease management (O'Connor, 2005).

Evidence supports the use of nurse-led diabetes clinics in the treatment of patients with diabetes (Day, 2002c; New, Mason, Freemantle, Teasdale, et al, 2003; Day, 2004; Courtenay, Stenner, Carey, 2010). RNs provide comprehensive support with the aim of empowering patients to self-manage their diabetes. The needs of patients with diabetes are varied and wide-ranging and need to encompass education about diabetes, complications and the role of medications. Research and clinical audits have demonstrated that nurse-led initiatives fulfil this role and improve patients' ability to self-manage their diabetes.

Further Aotearoa/New Zealand nursing initiatives include ear nurse specialist clinics that are effective in reducing the incidence of hearing loss in children (Manchester, 2003). The Variety Club collaborate with regional public health nurses to provide funding for 14 Mobile Ear Clinics to travel the country providing early diagnosis and treatment of common childhood ear infections. Each year nearly 200,000 children attend a Variety Mobile Ear Clinic. The Mobile Ear Clinic is accessible and nurses have made a positive impact to prevent hearing loss and improve ear health of children (MOH, 2005b).

McMenamin and Handley (2005) demonstrated the benefit of nurse-led health screening and education checks in general practice. O'Conner (2003, 2005) described the success of Whānau Ora Nurses and MHPs in meeting the health needs of local communities in a holistic

and innovative manner. Clendon & White (2001) described a nursing centre that collaborated with the local community, secondary care providers, social services and other health care professionals to improve the service and meet identified needs. An evaluative study of this clinic was undertaken as part of an international research project and identified that community involvement and service responsiveness contributed to the success of the clinic (Clendon, 2004; Clendon & Krothe, 2004).

Additionally, Primary Health Organisations (PHOs) have implemented local community health promotion initiatives. For example a PHO implemented an innovative service to assist people with type II diabetes to develop self-management skills. The initiative was implemented by RNs who had undergone specific training to support patient self management. Evaluation undertaken demonstrated improved outcomes for Māori and non Māori. The evaluation noted the importance of no-cost extended nurse consultations cultural appropriateness and formal written wellness plans developed in partnership with computer template support (Timothy, Kenealey, Eggleton, Robinson, Sheridan, 2010).

The Role of RNs within the Context of Māori Health Care Provider Services

Since the early 1990s Māori Health Care Providers have successfully provided accessible, affordable, culturally appropriate care within mainstream funding. These services work within Māori perspectives of health that encompass physical, psychological, spiritual, emotional and family as key components of well-being (Durie, 2003a; Durie 2004; Timu-Parata, 2006; Janssen, 2009). Māori models of health are implemented successfully but funding and reporting mechanisms that are output driven may not capture the service provided and may be an invalid form of assessment and evaluation of services (Janssen, Nelson, McEldowney, 2009). Research demonstrates the importance of Māori values and processes being captured in the evaluation of Māori services (Janssen, 2008).

Janssen, Nelson and McEldowney (2009) evaluated the effectiveness of a nurse-led Diabetes Programme and identified that Māori Providers met the needs of the local community. The programme acknowledged Māori paradigms of health by incorporating tikanga Māori values and Māori models of health. This highlights the importance of responsiveness of the

organisation and delivery of health services that are culturally appropriate and acceptable. Handley, Pullon and Gifford (2010) demonstrated the importance that individuals with type II diabetes placed on family and friends in supporting self-management. The research also highlighted the way cultural and spiritual beliefs supported individuals and this demonstrates the importance of RNs and providers adopting a holistic approach to improve health outcomes.

Therefore, as some services actively build capacity in indigenous communities and deliver culturally appropriate health care that meets community needs, the method of evaluation must reflect Māori values and processes. Community governance is central to the process of developing cost effective, responsive services that achieve improved health outcomes and appropriate methods of evaluation (Sorenson, Fowler, Nash, Bacon, 2010). The WHO have identified that globalisation and the impact of non-communicable diseases are putting health service delivery in many countries under stress. Health care systems are not performing as well as they could and should and PHC has the potential to fulfil this role (WHO, 2008b).

In Aotearoa/New Zealand, key findings of the Whanau Ora Taskforce acknowledge the gains made in Government policy and Māori Health Care Providers during the last twenty years. The Taskforce has stated that the time has come to build on these strengths. In order to do this intersectoral collaboration within Government departments, funders, providers and health care professionals will be required (Durie, Cooper, Grennell, Snivelu, Tuaine, 2010). Acknowledging community capacity and developing this further will contribute to the empowerment of individuals and whanau. Local knowledge of the community, along with appropriate funding that includes research, evaluation and accountability, are important aspects that improve health status and the sustainability of initiatives (Wright, Williams & Wilkinson, 1998; Durie, Cooper, Grennell, Snivelu, Tuaine, 2010).

However, current funding remains fragmented as providers compete for contracts to provide health services. Contract reporting requirements are essential components of maintaining funding, resulting in MHPs frequently being driven by reporting requirements, not whanau or community needs. Service provision and funding has a strong biomedical focus. Funding, reporting and accountability are necessary requirements but these are inconsistent if they are the sole or only requirements in relation the Whanau Ora Taskforce recommendations. This

approach is based on a deficit model and does not contribute to whanau empowerment (Durie, Cooper, Grennell, Snivelu, Tuaine, 2010).

The Role of Clinical Nurse Specialists and Nurse Practitioners in Primary Health Care

Since the implementation of the Primary Health Care Strategy, RNs' roles have expanded improving access and cost-effectiveness of services. However, RNs practice at different levels of expertise and there is no clear career pathway within the PHC environment. The development of Primary Health Organisations (PHOs) in 2001 provided the opportunity for collaboration with other agencies and disciplines. Many PHOs have employed specialist RNs such as, diabetes or respiratory nurse specialists, to enhance access and care provided by other services for example, Medical Centres and MHPs in the local community (Finlayson, Sheridan, Cumming, 2009).

However, there is a lack of research on the role, scope of practice and effectiveness of specialist nurses employed by PHOs (Horsburg, Kent, Coster, 2005). It is unclear if they are utilised to their full potential. For example, do clinical nurse educators (CNS) support education of other RNs within the PHC environment. The CNS role in the PHO environment could potentially contribute to preventing RNs from expanding their scope of practice and may cause RNs to become de-skilled by referring patients to the CNS services rather than utilising their skills to assist individuals to manage their condition.

The role of the CNS working for PHOs has the potential to create further fragmentation of care. For example, a patient who has type II diabetes and COPD may be seen by the GP and up to four RNs namely, the practice nurse (RN), Māori Health Provider (RN), PHO diabetes specialist (RN) and PHO respiratory specialist (RN). This is an additional dimension that has not been well researched when looking at the role of the CNS in relation to Māori Health Providers. This study may potentially highlight whether the interaction between RNs and CNS enhances RNs' ability to work holistically with individuals who have type II diabetes, or not.

In this context, a good example of integrated care is demonstrated by the RNs and CNS employed by Te Puna Hauora who have successfully developed robust Kaupapa Māori Services. Te Puna Hauora services are fully integrated with local mainstream providers in PHC and at the interface between primary and secondary services. The service has developed robust intersectoral collaborative relationships that work toward providing care holistically within the local community (Lynford & Cook, 2005). An important aspect is funding and contracts that support RNs to develop these relationships (McMurray, 1999).

Furthermore, the service works with local communities to achieve permanent improvement in health status and to facilitate collaborative relationships (Lynford & Cook, 2005). It is unclear if or how the role of the CNS contributes to this service. Understanding the CNS's role is particularly important in this context as they have the potential to significantly contribute to reducing the incidence of type II diabetes, prevent complications and to improve health outcomes given the complex nature of this condition.

Internationally, there are many examples of nurses who have developed their scope of practice in specific areas to provide care and support to individuals and other health care professionals. The role of the CNS has developed in primary and secondary health care settings. For example, research has demonstrated that 54% of readmissions to hospital for heart failure are avoidable. Issues identified included poor patient education, non-compliance with medication regimes and sub-optimal treatment and management. CNS have successfully provided comprehensive care and support, improving quality of life and reducing avoidable hospital admissions thus showing the value of this nursing role (Jolly, 2002; Ayers, 2005).

Farrell, Molatassiotis, Beaver and Heaven (2010) demonstrated the value of CNSs who provided education and support for pain management. CNS support led to increased understanding of the condition and medications allowing for better patient self-management and pain control. The service provided by the CNS demonstrated significantly reduced pain intensity and improved control of pain and most importantly was acceptable to patients. The service was also cost effective (Courtenay, Carey, 2008; Farrell, Molatassiotis, Beaver, Heaven, 2010).

Courtenay and Carey (2006) confirmed that CNSs have been effective in the delivery of care in dermatology internationally. The benefits of nurse interventions on service delivery

include a reduction in the severity of the conditions and more effective treatment. Patients have reported an increased knowledge of their condition and treatment. Evaluation has demonstrated a reduction in referrals to the GP and dermatologist but the cost effectiveness of CNS role in dermatology was not explored.

Additionally, in Aotearoa/New Zealand there has been a gradual development of the CNS role in recent years, augmented by the formation of PHOs. RNs in this role provide specialist care to specific patient populations (MacKay, 2002). CNSs have extended their role in speciality practice such as diabetes, CVD, and respiratory care at an advanced level. The CNS role supports PHC providers, GPs and Practice Nurses (Carrier, Dignam, Docherty, Lightfoot, et al, 2001). Evidence suggests that the CNS role is effective, acceptable and cost efficient however it was unclear from the literature how the CNS role supports MHPs to deliver holistic whānau centred care that reflect Māori paradigms of health.

In Aotearoa/New Zealand, the CNS role in relation to MHP services and Māori paradigms of health has not been clearly defined or evaluated. In order to provide holistic whānau centred care, clearly identifying and defining the role and scope of practice of the CNS in PHC is essential. Aotearoa/New Zealand is uniquely placed to develop the CNS role and define best practice in relation to Māori paradigms of health and potentially provide a framework for other indigenous communities. This study may reveal how the evolving role of the CNS supports RNs who are employed by MHPs.

Additionally, in Aotearoa/New Zealand a growing number of nurses have extended their scope of practice and may hold prescribing rights. Nurse Practitioner (NP) is a legal title for a nurse who has completed advanced education and training in a specific area (The Nurse Practitioner Advisory Committee of New Zealand [NPAC-NZ], 2006). NPs collaborate with other health care professionals and work in partnership with individuals, families /whanau and communities across a range of settings. NPs provide a comprehensive service including assessment and treatment (Nursing Council of New Zealand [NZNC], 2008).

Tai Tokerau Primary Health Organisation (PHO) in Northland developed a comprehensive outreach service provided by a Whānau Ora Nurse Practitioner who has prescribing rights. The NP provides a Kaupapa Māori advanced nursing service to an underserved population. The successful service is underpinned by the principles of the Treaty of Waitangi/Te Tiriti o Waitangi and works in partnership with the community to promote wellness (NZNC, 2010).

This model of nursing practice is an excellent example of advanced nursing practice that works with the community to provide services that are accessible, affordable and culturally appropriate.

However, the pathway to reach Nurse Practitioner status is resource intensive, requiring comprehensive experience, a Clinical Masters Degree and an additional qualification if prescribing rights are chosen. The Nursing Council then assesses each applicant individually (NZNC, 2008). There are a limited number of NPs in New Zealand and only a small number have prescribing rights. A number of initiatives are available to support RNs into this role which is ideally suited to further develop services of Māori Health Care Providers especially those who do not have a GP service. However the number of NPs in Aotearoa/New Zealand may remain small due to the lack of support, funding and career pathway within the current PHC environment. A key component of advanced nursing practice is access to and funding for post-graduate education.

Education and Nurse Prescribing

Current national clinical indicators demonstrate that diabetes care could be significantly improved. RNs have an important role in diabetes care and the National Diabetes Nursing Knowledge and Skills Framework (NDNKSF) provides extensive additional knowledge and skills for RNs who work with individuals who have a diagnosis of type II diabetes. This resource has been developed to assist all RNs to provide consistent high quality evidence based care. The NDNKSF is linked to national guidelines, standards of practice and nursing competencies for registration (Mid-Central District Health Board [MCDHB], 2009).

The framework defines speciality diabetes nurses as RNs who have diabetes knowledge and skills to provide care at an advanced level for people at high risk of developing complications. Diabetes CNSs utilise advanced skills and knowledge to provide care to people who require responsive and complex support and management. Diabetes CNSs offer support for health care professionals who are providing care to this group of patients. Therefore, care provided by RNs in primary health care is augmented by the role of the diabetes CNS (MCDHB, 2009). Yet the value of the role of the diabetes CNS within the context of MHPs and Māori paradigms of health remains unclear.

The Health Workforce New Zealand (HWNZ) has produced a proposal that nurses working in diabetes services should have prescribing rights. Under this proposal, nurses working as diabetes nurse specialists will be approved by the Nursing Council as designated prescribers (MOH, 2010a; Wilkinson, 2010). Currently the proposal is a pilot research for diabetes specialist nurses only. Therefore, the impact of this initiative is likely to be limited in relation to MHPs (MOH, 2010a).

Internationally there is robust evidence demonstrating that RNs who work in PHC can safely prescribe medications and contribute to timely and accessible medication and improved health outcomes (Latter, Courtenay, 2004; MOH, 2010a; Wilkinson, 2010). For example, in the USA nurses have had prescribing rights since 1977 when legislation authorised Nurses in the Expanded Role limited rights. This was expanded for NPs to prescribe for patients in Long Term Care in 1983, followed by midwives in 1990 and then NPs and CNS in Psychiatry in 1992 (Department of Public Health; 2010). The legislation has assisted the development of the National Nurses Consortium, a successful multicentre health care provider for the poor and underserved populations throughout the USA (Torissi, Hansen-Turton, 2005).

Similarly RN prescribing entered the UK policy agenda in 1986. NHS regulations were amended to allow suitably trained community nurses to prescribe independently and RNs were granted limited prescribing rights in 1994. This was extended in 2002 and the Nursing Formulary was also extended but still limited (Davis & Drennan, 2008). The Nurse Prescribers' Formulary is for use by RNs who have received nurse prescriber training and contains details of the medicines that may be prescribed by nurse prescribers (Davis & Drennan, 2008). Since 2006, independent nurse prescribers in the UK have the ability to prescribe any licensed medicine for any medical condition within their scope of competence if they meet certain criteria. Nurses must have three years post-registration experience and have completed a course, examination and registration with the Nursing and Midwifery Council (Barclay, 2005; Davis & Drennan, 2008).

Courtenay, Stenner and Carey (2010) highlighted the benefits of RNs prescribing for patients with diabetes within PHC settings. Patients were confident in nurse prescribing and the key components of this, which were identified as contributing to patient satisfaction. The key factors identified were good communication, a trusting relationship and the length of the

consultation. The RNs' specialist knowledge of diabetes and associated medication were key factors in the acceptability of nurse prescribing for patients. Further identified factors were professional communication between RNs and GPs. The RNs training, experience and awareness of their scope of practice were also contributing factors. Access to medication was improved and the RNs' ability to prescribe increased the efficiency of the diabetes services in PHC.

The UK Government policy supporting the extension of prescribing responsibilities to non-medical professionals has been successful and there are now over 16,000 RNs who can independently prescribe any medicine for any medical condition within their competence on the same basis as doctors. RNs who prescribe under section A (very limited prescribing rights) and/or B (comprehensive prescribing rights) of the nursing formulary are not affected by the new legislation (Barclay, 2005; Davis & Drennan, 2008). The UK experience could be drawn on to utilise the nursing workforce in this way in Aotearoa/New Zealand. There would be specific benefits for MHP as currently many do not have GP service provision and therefore RNs with prescribing rights would increase responsiveness and timeliness of appropriate care.

In 2006, the MOH commenced a review of the policy documents that relate to prescribing rights and standing orders (New Zealand Society for the Study of Diabetes [NZSSD], 2010). Following analysis the MOH identified issues relating to the timely, appropriate access to prescription-only medicines (NZSSD, 2010). The review process is now developing a prescribing policy which reflects the RNs' scope of practice (NZSSD, 2010).

In Aotearoa/New Zealand some Nurse Practitioners (NPs) already hold prescribing rights as an additional tool that allows utilisation of their expertise to provide a comprehensive service. Nurse prescribing is in its infancy in Aotearoa/New Zealand and for this tool to be utilised effectively by RNs prescribing rights will need to be extended to include those who do not hold NP status. Progress could take many years as the current Health Workforce New Zealand (HWNZ) proposal has many hurdles for nurses seeking prescribing rights.

Stipulating a specific area of expertise imposes limitations on practice and long-term conditions including type II diabetes require comprehensive pharmacological management (MOH, 2010a; Wilkinson, 2010). RNs who work for MHPs would not be included in the

current legislation which is for Diabetes Specialist Nurses only. However, RNs employed by MHPs work holistically with whanau and are ideally placed to improve access to medication and concordance with medication in this environment.

Nurse Prescribing and pharmacological management of Type II Diabetes

Concordance means ‘to agree’ and this is a critical factor of successful pharmacological interventions. Concordance is achieved by agreement between the prescriber and the patient. In order to reach agreement a partnership is established and knowledge is an essential component of this process. Research has demonstrated the importance of pharmacological intervention to successfully manage type II diabetes and to prevent cardiovascular complications (Jensen, 2000; Clarke & Goosen, 2005; The Free Dictionary, 2008). Kerse, et al (2004) demonstrated that when GPs facilitated understanding and agreement with medication regimes there was greater concordance resulting in improved clinical outcomes.

Additionally, policy documents recommend that integrated approaches are adopted for health care delivery through innovative employment arrangements and funding (MOH, 2003b). Prescribing rights for RNs who work for Māori health providers have the potential to improve health outcomes and facilitate the most appropriate nursing response. The relationship that RNs have with whanau is a critical component to develop understanding and concordance with medication regimes.

In contrast, compliance is defined as the act of complying with a wish, request, or demand and this term is frequently used when patients take medications as prescribed (The Free Dictionary, 2008). Another frequently used term is adherence which is defined as the act, process or condition of adhering to an instruction or demand (The Free Dictionary, 2008). Neither term upholds the autonomy of people who are prescribed medication nor do they fit necessarily within Māori paradigms of health and wellness (Barnes, Moss-Morris, Kaufusi, 2005).

Clarke and Goosen (2005) state that a key issue for GPs working with Māori is non-compliance with medication compared with the rest of the practice population. The GPs felt that unless patients complied with the treatment there was little that could be done to achieve results (Clarke & Goosen, 2005). The focus in this research was patient compliance and

adherence and no effort was made to identify or address any barriers to taking medication or to develop patient/whanau knowledge so that concordance was achieved. The importance of cultural competence and relationship building cannot be underestimated as this research clearly demonstrates. Equally important is the willingness of health care professionals to attribute individual choice as the reason for non-compliance. There is the potential for health care professionals to discharge responsibility and in some instances to apportion the blame to patient's personal choice.

RNs who work for Māori Health Care Providers acknowledge Māori concepts of health and work in partnership with whānau to establish a strong relationship and to achieve positive health outcomes that are inclusive of medication regimes (Durie, 1999). Māori models of health such as Whare Tapa Wha are utilised in clinical nursing practice and it is within this environment that nurse prescribing could potentially enhance concordance with medication regimes and thus reduce poor health outcomes associated with ineffective use of pharmacological interventions (Rochford, 2004).

International research provides evidence that RNs who have prescribing rights safely contribute to improved health outcomes (Latter, Courtenay, 2004). The current proposal for nurse prescribing in relation to Type II Diabetes is limited and will only apply to RNs who specialise in diabetes. The proposal is unlikely to have an impact on improved health outcomes for Māori. Funding contracts may mean that individuals and whanau who are enrolled with a GP service may also attend a MHP service leading to fragmentation of care and difficulty providing support that facilitates concordance with medication regimes in a holistic way.

Primary Health Care Landscape

Intersectoral Collaboration

A further theme that emerged from the literature review related directly to the primary health care landscape and the way that the structure of PHC influenced RNs' clinical nursing practice. An important aspect of PHC and health promotion that was identified in the

literature related to intersectoral collaboration. RNs' ability to develop intersectoral collaborative relationships is strongly influenced by government policy and contractual arrangements. Intersectoral initiatives operate within a wide social, economic, political and environmental context. The success of these initiatives is dependent on developing and maintaining collaborative, locally based intersectoral action with the community (Krothe, Flynn, Ray, Goodwin, 2000; MOH, 2005). In Aotearoa/New Zealand these initiatives are supported by Government policy, namely, the PHC Strategy, He Korowai Oranga and the Whānau Ora Strategy (Durie, et al, 2010; MOH, 2001; MOH, 2001a; MOH, 2002f; MOH, 2005; MOH, 2010d; MOSD, 2005).

The PHC strategy provides the framework for a strong PHC system that is inclusive of community involvement in the planning and delivery of services. The strategy aims to reduce health inequalities and address poor health status by improving access and affordability of PHC services (MOH, 2001). Following the development of the PHCS, He Korowai Oranga was developed in 2002 with the aim of placing whānau at the centre of public policy. It provides a framework that enables whānau to achieve health, wellness and quality of life (MOH, 2002f). The heart of He Korowai Oranga is whānau development and this recognises and supports the integral strengths of whānau (MOH, 2002f).

Furthermore, these strategies were followed by the publication of the findings and recommendations of the Whānau Ora Taskforce (Durie, et al, 2010). The Taskforce developed a framework based on a review of relevant literature, the experiences of health and social service agencies, an analysis of oral submissions and written submissions from individuals and organisations (Durie, et al, 2010). Key themes emerged; these include local representation in decision-making, adequate resourcing and quality relationships between whānau, providers and iwi. The Taskforce also highlighted the need for a research and evaluation component for Whānau Ora service providers (Durie, et al, 2010).

Evidence of the impact of RNs in community based intersectoral initiatives in New Zealand has been limited. Identification and evaluation of factors that contribute to successful RN involvement in collaborative primary health care initiatives in New Zealand are important in the New Zealand context. There are a number of intersectoral initiatives that contribute to improved health outcomes, but it is unclear if, or how RNs are supported to contribute to

these. It is also unclear how the current funding and contract environment impacts on the RNs ability to contribute to intersectoral initiatives.

The MOH identified key characteristics of successful, effective intersectoral initiatives from evaluating initiatives undertaken in New Zealand between 1980 and 2005. Appropriate funding and having a formal arrangement in place between organisations for example using memorandums of understanding (MOUs) prior to implementation were identified. Formal and appropriate governance with clearly defined aims to improve health status and reduce health inequalities were also key components of successful initiatives.

Additionally, successful intersectoral initiatives worked within a defined geographical area and targeted specific groups living within that geographic location (MOH, 2005). Evaluation of initiatives in Aotearoa/New Zealand demonstrated improved changes in people's health related knowledge and behaviour (Ministry of Health, 2001). There is potential for RNs to contribute effectively and holistically with the aim of supporting individuals, whānau, hapu, iwi to prevent obesity and type II diabetes and to assist effective management of this condition utilising this holistic approach.

Intersectoral Initiative - Health Promoting Schools

The Health Promoting Schools (HPS) initiative is a successful example of this approach, which was initiated by the WHO and established in Aotearoa/New Zealand in 1997 (MOH, 2003c; WHO, 2010b). The HPS is a framework that embraces a holistic whole school approach. The framework is based on Te Whare Tapa Wha a model that promotes hauora/ wellbeing and is underpinned by Māori concepts of health and wellness (Durie, 1994). Te Whare Tapa Wha embraces the four dimensions of hauora/ wellbeing: taha tinana/ physical, taha hinengaro/mental and emotional, taha whanau/social and taha wairua /spiritual (Durie, 1994; MOH, 2003c; MOH, 2003d).

Furthermore, the framework acknowledges tino rangatiratanga o te hauora or the right of individuals to determine their own health and wellbeing. The whole school community, including schoolchildren, teachers and family/whanau are encouraged to be involved in

the process. This approach builds the capacity of the whole community (MOH, 2003c; MOH, 2003d). As a component of this successful process, healthy lifestyle initiatives have been implemented to encourage healthy food choices, increase physical activity and many schools have also established school community gardens (Taylor, 2009).

Research results demonstrated this whole-school approach, sustained over time has benefits for the school community (MOH, 2003c; MOH, 2003d; WHO 2010b). The benefits of health promotion that encompasses Māori concepts of health have the potential to reduce obesity rates in children and adolescents and encourage resiliency, self-belief and community capacity and prevent development of long term conditions including type II diabetes. For example, The Rhodes Street school has successfully implemented health promoting schools, Healthy Eating, Healthy Action (HEHA), Mission-On, Jump-Jam, Fruit in Schools, Water only Schools, Eco-Schools and Feeding our Futures programmes (Ngatai, 2010).

Adopting a holistic approach demonstrated the effectiveness of involving the whole community when providing health education, health promotion and support. It is unclear if RNs working for local Māori providers are involved or whether RNs participating in this research are supported to develop relationships within the community that facilitate this successful approach to improving health outcomes. Community development recognises the need to appreciate diversity and work collaboratively with communities experiencing disadvantage in order to address the wider issues affecting health and wellbeing (Bullen, 2006; Calgary Health Region, 2001).

Intersectoral Initiatives and Māori paradigms of health

Durie (2003) emphasises the need to embrace indigenous health perspectives, build community capacity and address socioeconomic factors when delivering health care and these concepts underpin Māori paradigms of health. Therefore developing intersectoral collaboration is effective and this is endorsed by Government policy. There is potential for RNs to enhance intersectoral collaboration and facilitate holistic culturally appropriate health care and community focused health promotion within the current healthcare landscape. As previously noted, it is important that RNs working for MHPs are supported to contribute to

these initiatives. Again, current literature does not identify how or if RNs are supported in this aspect of clinical nursing practice. Identifying barriers and facilitators for RNs' clinical practice has the potential to increase current knowledge in relation to intersectoral collaboration within the context of PHC and Māori paradigms of health.

Eugenics and Socio economic Determinants of Health

Eugenics

A significant amount of genetic research has been undertaken in relation to type II diabetes. Much of this research has been undertaken in indigenous communities. It is evident from the literature review that some research undertaken with Māori has not been of benefit for Māori (Thompson, Melia, Boyd, 2005). In addition, a focus on funding genetic research that does not include exploration of environmental factors is very narrow and excludes important aspects of health outcomes such as, income, housing and access to health care services.

Therefore the actual benefit of research that has a sole focus on genetics may be very limited in relation to RNs' clinical management of type II diabetes. There is also potential for such research to cause harm through misinterpretation that perpetuates racism within society. The importance of considering the context of people's lives in relation to genetics is significant and an essential element of research that is meaningful in relation to RNs' clinical practice. One might argue that genetic research that does not include environmental factors such as, socioeconomic status, literacy, health literacy, income, access to appropriate and affordable healthcare is of limited value within a clinical environment.

Eugenics is a Greek word that means 'good in birth'. In 1883 Sir Francis Galton utilised the word to describe the science of improving humanity through selecting the qualities that improve race, predominantly via arranged marriages and by identifying those people in society who were classed as 'unfit' or 'defective' and who should not be allowed to produce children (Yanguang, 1999). During the early years of the twentieth century the 'scientific' theories of eugenics became popular and beliefs in this 'science' grew. Eugenic theories were

based on the belief that intelligence, social, mental, behavioural and emotional traits were inherited (Taylor, 2005). These theories were favoured by many in society including members of the medical profession and this was particularly true of psychiatrists who linked mental illness to Eugenic theories (Yanguang, 2005; Taylor, 2005).

Many Governments including the UK, USA and New Zealand produced legislation based on eugenics in order to control those in society who were viewed as 'unfit' or 'defective'. Medical sterilisation became common practice in many countries including the USA and Aotearoa/New Zealand for those who were classed as 'unfit' or 'defective' and this was particularly true for those people in society who suffered from mental illness. Following the end of the Second World War and the atrocities that occurred in Nazi Germany, eugenics fell from favour and was regarded as a 'pseudoscience' (Yanguang, 2005; Taylor 2005). The search for the origins of the human race continued and the chemical structure of deoxyribonucleic acid (DNA) a nucleic acid containing all genetic instructions) was identified in the 1950s. The discovery of DNA provided evidence that genes determine hereditary and a new era in genetics commenced (Buchanan, 2001).

The Genetic code was identified in 1966 allowing scientists to predict characteristics by studying DNA. In the late 1980s an international team of scientists began to map the human genome (Buchanan, 2001). Sequencing of the entire human genome was completed in 2000 and by 2003 over 99% of the nucleotide sequences of the human genome had been completed. There is much that remains poorly understood. For example, there are 40,000 protein-coding genes and three to four million protein compounds each having a unique role to play (Martini & Welch, 2005). The human genome research has the potential to produce both positive and negative outcomes for humanity and poses significant bioethical dilemmas (Buchanan, 2001; Clarke & Goosen, 2005).

There are examples of conditions that were assumed to be genetic because they appeared in a defined ethnic group. The Pellagra Government Commission in the USA in 1900 concluded that pellagra was a genetic disorder ignoring the extreme poverty of the communities who had developed this condition. In fact the cause is profound niacin deficiency found globally where malnutrition is endemic. No action was taken by the US Government because the cause was reported as genetic in origin and therefore inevitable thus discharging the US

Government of any responsibility to those communities where pellagra was endemic (Bollet, 1991).

Further examples of genotype as an explanation for variations in health statistics have been reported and sometimes misrepresented by the media. For example the ‘warrior’ gene is responsible for aggressive antisocial behaviour and the ‘thrifty’ gene is responsible for the rise in diabetes especially in indigenous peoples (McDermott, 1998; McMichael, 2001). The monoamine oxidase-A genetic variant has been associated with antisocial behaviour in some research. However the complex environmental factors that contribute to antisocial behaviour have not been clearly identified or included in some of the monoamine oxidase-A research (McDermott, 1998; McMichael, 2001).

In 2006 a group of scientists linked the monoamine oxidase-A gene to a range of antisocial behaviours including violence, gambling, alcoholism and criminal behaviour in the Māori population (Merriman & Cameron, 2007; McDermott, Tingley, Cowden, Frazzetto, Johnson, 2009). Subsequent reporting by the media was controversial and perpetuated racist and oppressive opinions (Merriman & Cameron, 2007; Wensley & King, 2008; McDermott, et al, 2009). This clearly demonstrates the power that science has in modern society and the negative influence and impact that can occur when information is misused and misrepresented (Merriman & Cameron, 2007).

Similarly, the ‘thrifty’ genotype is thought to be efficient in utilizing food and protecting against starvation in time of famine. The ‘thrifty gene’ has been reported as a significant factor in type II diabetes in indigenous communities (McDermott, 1998; McMichael, 2001). The prevalence of type II diabetes is up to six times higher for indigenous Australians than those of European descent and this supports the hypothesis of the ‘thrifty’ genotype.

Research in an indigenous community in Queensland identified a link between type II diabetes and genes found on chromosome two in this community further supporting the ‘thrifty’ gene hypothesis (Busfield, Duffy, Kesting, Walker, Lovelock, et al, 2002). The research did not acknowledge the environmental factors that are associated with type II diabetes. Notably these examples ignored socio economic factors and illustrate the potential to legitimise inequities in society and promote racism.

In contrast, genetic research has had positive outcomes by informing clinical practice, genetic counselling, and treatment options. Researchers have identified specific genes implicated in many conditions, for example, Huntington's chorea, breast cancer, asthma, cystic fibrosis and diabetes (Martini & Welch, 2005). Research identified genes implicated in type II diabetes of the young (MODY). MODY is an autosomal dominant therefore there is a 50% chance of children of an affected individual inheriting the affected gene and developing MODY themselves. Genetic counselling may assist families to make informed decisions and regular screening for those identified as having the MODY gene to ensure early diagnosis and treatment.

Additionally, a research programme identified patients with stable mild hyperglycemia who have a glucokinase gene mutation that does not require treatment and testing is available when this condition is suspected. This prevents unnecessary treatment of those affected by the glucokinase gene (Busche & Hegele, 2001; Murphy, Ellard, Hattersley, 2008). However, only 1% to 2% of the UK population have this gene mutation so the cost benefit of the research and development of a screening test is questionable given the financial burden of type II diabetes and the very limited positive impact of this costly intervention.

Genetics Environmental and Socioeconomic Factors

Research demonstrated that the MODY and glucokinase genes discussed previously, are not implicated in indigenous Pima Indians of Arizona where there is a high incidence of type II diabetes (Baier, Permana, Traurig, Dobberfuhl, et al, 2000; Busche & Hegele, 2001; Murphy, Ellard, Hattersley, 2008). There are complex environmental factors implicated in type II diabetes and research indicates that this is also true of genetic make-up. For example a number of genes implicated in type II diabetes have been found on chromosome twenty demonstrating that many different genes are involved (Martini & Welch, 2005).

Genetic screening in different ethnic groups has identified many different chromosomes and genes are linked to type II diabetes, metabolic syndrome and familial hyperlipidaemia (Baier, Permana, Traurig, Dobberfuhl, et al, 2000). Bioscientists have shown that molecular genetics can potentially enhance understanding of disease pathogenesis and aim to formulate preventative and treatment strategies (Hitman, Sudagani, 2004). They believe identification

of genetic markers for type II diabetes is fundamental for understanding the cause of the disease, identifying subjects at risk and developing effective preventative and therapeutic management of the condition (Busfield, Duffy, Kesting, Walker, Lovelock, et al, 2002).

A family history of type II diabetes is a strong risk factor for type II diabetes and supports the viewpoint of many bioscientists. This information can be utilised by society and health care professionals and may lead to misinterpretation by attributing a genetic cause and ignoring issues of social disadvantage. Social disadvantage is strongly implicated in type II diabetes and metabolic syndrome. This is reflected in statistics which show that Māori who represent a large proportion of low income earners in Aotearoa/New Zealand are also disproportionately affected by type II diabetes and complications of this disease (Pickup, 2004; Perry, 2005).

The clinical value and cost benefit of identifying the genes implicated in type II diabetes remains ambiguous and does not account for the complex environmental factors associated with type II diabetes. The examples discussed illustrate the powerful influence that research has on society, both positive and negative. This raises a number of issues for primary health care nurses, healthcare professionals, Government agencies and policy makers. Evidence of genetic factors linked to health conditions should be reported in the context of environmental factors as these contribute to the research and give the context which may defuse potentially discriminatory attitudes in society (Wensley & King, 2008; Whittle, 2010).

The opinion of nursing professional organisations was not apparent or represented in terms of genetic research of type II diabetes. There are a number of bioethical issues that genetic research raises for RNs working with Māori. Will Māori benefit from research undertaken in their community? If cause is attributed to genetics then there is a risk that health care professionals and Governments may not be proactive in prevention and management of type II diabetes. Attributing type II diabetes to genetics implies that this condition is inevitable and allows healthcare professionals including RNs and Government policy makers to discharge responsibility as we cannot alter the genetic make-up of individuals in society (Gravlee, 2009).

There are additional issues that this may raise, for example, discriminatory practices by employers, health industry and insurance companies (Billings, Kohn, Cuevas, Beckwith, Alper, Natowicz, 1992). Genetic factors influence health, but are only part of the complex

issues affecting health outcomes. Results of genetic research are informative but how this research may be applied to clinical nursing practice is unclear. Misinterpretation of research may perpetuate discriminatory practice and negatively influence health care delivery (Young, Reading, Elias, O'Neil, 2000; Ayach & Korda, 2010).

Significant resources are dedicated to genetic research of type II diabetes but this should not be the priority (Young, Reading, Elias, O'Neil, 2000; Ayach & Korda, 2010). As an illustration: If the brakes fail on an express train, the train gathers speed and will soon run out of track. Although investigating the cause of the brake failure is important and must be researched, the priority is to slow down or stop the train to prevent injury and death. The focus for health care professionals and Government policy makers must be prevention of type II diabetes and pro-active management that avoids the complications of type II diabetes. RNs who work for Māori Health Care Providers are uniquely placed to identify how genetic research may influence current nursing practice and are potential advocates in this arena.

Advocacy is defined as a process where a nurse or health care professional provides a patient with the information so that the individual maintains the right of self-determination. RNs may undertake different roles to enable this to occur, for example, ensuring that information is understood as in informed consent. Secondly RNs will assess the information and circumstances and intercede on behalf of the individual, whānau or community (The Free Dictionary, 2008). The consequences of acting as a patient advocate can be potentially negative or positive. Critical components are accurate assessment of the event or potential intervention, partnership and communication to ensure that the patient, whānau, community retain the right of autonomy and that they will have a positive outcome from the event.

Genetic research raises a number of ethical issues in relation to who will benefit from the research. Questions are raised in relation to genetic research. Such as, what is the value of this body of research in the current healthcare environment? Should funds be spent on mapping the genes implicated in type II diabetes when the interaction between humanity as biological beings and the environment may be highly significant and potentially modifiable? Research that explores and supports successful initiatives in communities may be of much greater clinical value in prevention and treatment of type II diabetes.

Furthermore, scientific concepts of race, ethnicity and the dominant biomedical understanding of genetics are used to inform medical practice, health care delivery, public

policy and public opinion. For example, family history of type II diabetes is a significant risk factor and a number of genes have been identified that contribute to development of type II diabetes. However there is a danger that this may result in policymakers and healthcare professionals misinterpreting ethnic health disparities as being genetic and ignore the environmental contributing factors (Pickup, 2004; Paradies, Harris, Anderson, 2008). This creates a barrier to exploration of the complex ways social inequity and racial discrimination affects human biology and how this influences disease prevalence (Braun, 2002; Whittle, 2010).

Obesity is common among minority groups and the prevalence of obesity is growing at an accelerated pace in disadvantaged populations. Disparities in prevalence of obesity are associated with ethnicity, gender, age, and socio economic status. (Valeggia, Burke, Fernandez-Duque, 2010). Indigenous populations show an increased prevalence of obesity and associated co-morbidities. In indigenous populations a rapidly changing lifestyle and diet are additional factors.

Research has demonstrated that the burden of obesity has shifted from those who have more disposable income to those groups in society who have the lowest socio economic status (Monteiro, Moura, Conde, Popkin, 2004; Valeggia, Burke, Fernandez-Duque, 2010). There are significant inequities evident between Māori and non-Māori when looking at obesity, metabolic syndrome and type II diabetes (MOH, 2002; MOH, 2002a; MOH, 2002b; MOH & University of Otago, 2006; Robson & Harris 2007). For example 27.5% of Māori adults are obese compared with 14.7% of New Zealand European adults and extreme obesity affects 5% of Māori children compared to 1% of New Zealand European children (Gray, 2003).

The global increase of childhood and adolescent obesity is closely associated with an increase in the incidence of type II diabetes in this age group (Hannon, Gunor, Arslanian, 2006). Obesity and type II diabetes are higher in indigenous children and this has been attributed to environmental factors (Craig, Femia, Broyda, Lloyd, Howard, 2007). Incidence of complications in this age group is significant. Indigenous Canadian youth diagnosed with type II diabetes before the age of 17 years had a high incidence of poor glycaemic control, pregnancy loss, blindness, amputation and dialysis (Hannon, Gunor, Arslanian, 2006).

Although environmental factors are strongly implicated, for example, increasingly accessible and affordable high calorie foods and declining levels of physical activity, this is only a

component of the complex environmental issues involved (Bradbury-Jones, 2009; Shepherd, 2009). Appetite regulation involves hormonal and neurological systems. Ghrelin stimulates and regulates appetite and is implicated in the aetiology of obesity. How the environment influences ghrelin production is poorly understood and may be clinically significant in relation to the development of obesity and type II diabetes (Marieb, 2009; Shepherd, 2009).

Ley, Harris, Connelly, Mamakeesick, et al (2008) have shown that low levels of adiponectin are associated with the development of type II diabetes independent of obesity. In an indigenous Canadian population who had undergone significant rapid social and lifestyle changes low adiponectin levels were strongly associated with type II diabetes and metabolic syndrome (Liu, Young, Zinman, Harris, et al, 2006). The majority of studies on adiponectin have not explored the socio economic status of participants and therefore the influence of this remains unknown (Koenig, Khuseyinova, Baumert, Meisinger, Lowel, 2006; Wannamethee, Lowe, Rumley, Cherry, et al, 2007). However Tabak, Brunner, Miller, Karanam, et al (2009) confirmed in their study that adiponectin affects diabetes risk independent of employment status which is an indicator for socio economic status.

In contrast, research has demonstrated that individuals with elevated levels of serum cortisol developed abdominal obesity, insulin resistance and lipid abnormalities. Inappropriate activation of the hypothalamic-pituitary-adrenal axis by stress is linked to psychosocial stress and socio economic deprivation (Nito, Waspadji, Harun, Markum, 2004; McCance, Huether, 2006). Obesity, type II diabetes, metabolic syndrome and acute myocardial infarction are all associated with abnormal cortisol secretion and this is a significant factor when looking at the demographics of type II diabetes and metabolic syndrome (Bjorntorp, Rosmond, 2000; McCance, Huether, 2006). Environmental factors that contribute to inappropriate activation of the hypothalamic-pituitary-adrenal axis may be modifiable and research has the potential to inform Government policy in this arena.

Pasquali and Vicennati (2000) state that small increases in cortisol affect type II diabetes adversely by increasing complications. The role of socio economic factors, colonisation and urbanisation on serum levels of cortisol are largely unknown. How these factors influence the development of obesity, metabolic syndrome, type II diabetes and cardiovascular disease has been overlooked, but may be significant for future research, preventative measures and

Government policy makers. International statistics clearly demonstrate the ongoing negative impact of colonisation on indigenous populations including Māori (WHO, 2007a).

The UN note that colonised populations face many similar issues that include loss of cultural identity, discrimination, poverty, unemployment, low wages, poor schooling, high rates of imprisonment and poor health (Steer, 1996; Iveson, Patton, Saunders. (Eds), 2002; UN, 2005; UN, 2006). The General Assembly of the United Nations proclaimed 1995 to 2004 as the International Decade of the World's Indigenous People and called on all nations to take positive steps to recognise and respect human rights of indigenous people that valued the distinct culture and social organisation of Indigenous Populations (UN, 2005; UN, 2006). The UN passed a resolution (48/163) with the objective of strengthening international cooperation for the solution of problems faced by indigenous people throughout the world (UN, 2005; UN, 2006; WHO, 2008a).

The Effects of Colonisation and Marginalisation

In order to demonstrate the ongoing effects of colonisation on health the influence of colonisation and marginalisation will be explored within the context of modern Aotearoa/New Zealand. The socio economic and health issues facing Māori reflect the long lasting effects of colonisation (UN, 2005; UN, 2006). The total population of Aotearoa/New Zealand was 4,768,607 million in March 2010 and about 15% reported as Māori. The New Zealand 2006 National Census reported that 565,329 people belonged to the Māori ethnic group and 643,977 people reported that they were of Māori descent. Government agencies estimate that there are over 70,000 Māori living in Australia (Statistics New Zealand, 2006a). Statistics will be utilised to explore the complex and far reaching effects of colonisation in modern Aotearoa/New Zealand.

Poverty and social exclusion are closely linked to low income, poor health and premature death (WHO, 2010). Employment status is a key factor in poverty and underpins other health determinants for example, housing and education (MOH & University of Otago, 2006; St John & Wynd, 2008; WHO, 2010). Unemployment rates for Māori are three times higher than Pākehā and the income gap between Māori and non-Māori is notable (Statistics NZ,

2007; Department of Labour [DOL], 2007). Additionally Māori represent a large proportion of low income earners in Aotearoa/ New Zealand (Perry, 2005).

Similarly James (2007), reported significant differences in access to high quality housing for Māori and non-Māori. Poor housing and lack of suitable heating are associated with lower socio economic status and contribute to poor health outcomes (TSG, 2003; Howden-Chapman & Carroll, 2004; WHO, 2010). Pākeha were more likely to part own or own homes (59.7%) compared to Māori (31.7%) and were less likely to live in overcrowded accommodation (Statistics NZ, 2002; Ministry of Social Development [MOSD], 2007). Home ownership is linked to income and the distribution of wealth in Aotearoa/New Zealand is widening. The disparity in income in Aotearoa/New Zealand has grown more than any other OECD country and Māori represent a large proportion of low income earners (Perry, 2005; St John & Wynd, 2008).

Furthermore, poor housing, living in rented accommodation and low socio economic status are linked to increased incidence of alcohol abuse, illicit drug use and criminal acts including domestic violence (MOSD, 2007; TSG, 2009;). There is evidence of bias against Māori within the justice system of Aotearoa/New Zealand (Mayhew & Reilly, 2006). Māori have higher rates of conviction for similar crimes to non-Māori offenders and experience longer sentences for those crimes (Mayhew & Reilly, 2006; MOSD, 2007).

In addition, low socio economic status has a direct effect on education and education is an important component of socio economic status. Outcomes remain poor for Māori. Statistics demonstrate that Māori students are twice as likely to have left school by age 16 than non Māori students and only 9% of Māori students leave school with a qualification that would allow University entry (Durie, 2003; MOE, 2007; MOSD, 2007). This has a direct effect on employment opportunities for Māori (Durie, 2003; MOE, 2007; MOSD, 2007).

Education also affects one's ability to access health information and health services (Rootman & Ronson, 2005). Literature clearly demonstrates the impact of education on an individual's ability to access and utilise health services and make choices about their health (Nutbeam, 2000; Nutbeam 2008). International evidence link poor literacy to poor health literacy and health inequalities and this is evident in Aotearoa/New Zealand where statistics demonstrate that Māori have much poorer health literacy skills compared to non-Māori

(Korhonen, 2006; Nutbeam, 2008; MOH, 2010). Internationally research demonstrates the link between education, socio economic status and health. For example, The Black Report (1980) demonstrated an improvement in health across all social classes during the first 35 years of the NHS but noted a relationship between socio economic class and use of medical services with those most in need having the poorest access (Rivett, 1998).

Furthermore, links between socio economic deprivation and disease have been observed and are associated with a wide-range of adverse outcomes, for example, mortality, lung cancer incidence, diabetes, ischaemic heart disease, and complications of pregnancy (MOH, 2000; WHO, 2007). Health outcomes are linked to the social, economic, environmental and educational status of those populations who have been colonised (MOH 1998; Howden-Chapman & Tobias, 2000; Durie, 2003a; UN, 2006). Life expectancy can be used as an indicator of the effects of colonisation (Ministry of Social Development [MOSD], 2006).

Life expectancy at birth is the average number of years that a newborn baby is expected to live and this reflects the impact of social and economic circumstances on health outcomes (MOSD, 2006). For the period 2000 to 2002, life expectancy at birth for Māori males was 69.0 compared to 77.2 for non-Māori males. Life expectancy for Māori females was 73.2 compared to 81.9 for non-Māori females during the same time period. Although the gap between Māori and non-Māori life expectancy has improved it is still a significant health disparity (MOSD, 2006).

Complex factors including socio economic status contribute to health outcomes and life expectancy and in Aotearoa/New Zealand there is evidence of inequality of socio economic determinants of health (Howden-Chapman & Tobias, 2000; TSG, 2008). Total cardiovascular disease mortality was more than two-and-a-half times higher for Māori than for non-Māori and stroke mortality was also nearly twice as high in Māori (MOH, 2003a). Smoking is a strong contributory factor in cardiovascular disease and statistics demonstrate compelling disparities in health between Māori and non-Māori, for example, communities experiencing increased social inequality have higher smoking rates and lower incomes which impacts on health status (MOH & University of Otago, 2006; MOSD, 2007).

Socio-economic deprivation remains the most important predictor of smoking in Aotearoa/New Zealand (MOH, 2002a; Barnett, Pearce, Moon, 2005; MOH, 2006; MOSD, 2007).

Forty-seven percent of Māori are daily smokers, compared to 29 percent of Pacific people and 20 percent of other New Zealanders. Māori women have the highest smoking rate of 50 percent and experience the highest incidence of lung cancer (MOH, 2002a; Barnett, Pearce, Moon, 2005; MOH, 2006; MOSD, 2007). Smoking has been identified as the major cause of preventable deaths in developed countries and is associated with cardiovascular disease (CVD), cancer and respiratory diseases and the impact on health for those who are disadvantaged in society is significant (MOH, 2002a; Barnett, Pearce, Moon, 2005; MOH, 2006; MOSD, 2007).

Additionally, alcohol consumption contributes to poor health outcomes and there is an association between low socio economic status and increased alcohol consumption particularly apparent in youth (TSG, 2009a; Tobler, Komo, Maldonado-Molina, 2009). However, there are significant variations in drinking patterns and consumption between Māori and non Māori in Aotearoa/New Zealand (Bramley, Broad, Harris, Reid, Jackson, 2003). Alcohol consumption is 40% greater in non-Maori however the amount consumed in a drinking session was found to be greater in Māori (Bramley, Broad, Harris, Reid, Jackson, 2003). Alcohol was introduced to Māori during early European contact and historical information demonstrates that alcohol was non-problematic for many (Mancall, Robertson, Huriwai, 2001). Alcohol consumption and patterns of drinking are significantly different in Māori and this is important to consider when looking at alcohol consumption and health-related problems (Bramley, Broad, Harris, Reid, Jackson, 2003).

Globally non-communicable diseases account for 60 percent of deaths and the WHO state that changing diet and activity levels contribute significantly to this statistic (WHO, 2002). Deprivation is linked to obesity in developed nations with those who have low socio economic status experiencing higher rates of obesity (WHO, 2003; MOH, 2005; Kestila, Rahkonen, Marlelin, Lahti-Koski, Koskinen; 2009). The most important causes in the rise of obesity are urbanization, modernisation, low physical activity, easy access to high fat and sugar foods and changes in occupational structure (MOH, 2005). This is reflected in statistics which show that one in five adults in Aotearoa/New Zealand is obese and the problem is worse in children with one-third being overweight or obese.

New Zealand children are amongst the fattest in the world and health issues associated with obesity including type II diabetes are a significant risk for these children (MOH, 2005;

Toomath, 2005). Prevalence of obesity in Māori adults is high and 28 percent of females and 29 percent of males are obese compared to 20 percent of European females and 18 percent of European males (MOH, 2001; NZGG, 2003; Toomath, 2005; MOSD, 2007). The Ministry of Health has stated that delay in addressing the issues influencing the increasing rate of obesity at primary prevention level will lead to greater demand for health services in the future (MOH, 2004).

Furthermore, type II diabetes is directly related to obesity and the incidence of both are increasing annually, with at least 80 percent of newly diagnosed diabetics being either overweight or obese at diagnosis. Reducing the incidence of obesity will have a direct effect on poor health outcomes (Tuomilheto, 2001; MOH, 2005; MOSD, 2007). Once more, statistics clearly demonstrate significant disparities in the prevalence and outcomes of diabetes between Māori and non Māori (Robson & Harris, 2007).

In Aotearoa/New Zealand Professor Eru Pōmare produced the first volume of *Hauōra: Māori Standards of Health*, which compared mortality and morbidity of Māori and non-Māori for the twenty year period 1955 to 1975. This landmark document clearly demonstrated a much higher incidence of disease and mortality in Māori. Current statistics still reflect this trend. For example, life expectancy rates for Māori and non-Māori have improved from the 1950s but the gap between Māori and non-Māori remains significant. (Robson & Harris, 2007). Statistics for 2000-2002 show life expectancy for Māori males was 69 years and non-Māori 77.2 years (Robson & Harris, 2007).

In conclusion, access to appropriate and affordable health care remains a current health issue in Aotearoa/New Zealand for Māori (Dew & Davis, 2005; Ellison-Loschmann & Pearce, 2006). This is reflected in health outcomes between Māori and non-Māori which demonstrate longstanding inequities in health that are framed as increased health needs of Māori, not as a consequence of the effect of colonisation (Reid & Robson, 2006). The use of statistics illustrates the ongoing adverse effects of colonisation and attributing health outcomes to genetics is a serious misconception that attributes race as an explanation for inequities in health status and may lead to the perpetuation of discriminatory practices.

Conclusion

The literature review identified five key interwoven themes that inform this research. Suitable research methods that were closely aligned with the aim of the research were identified. Case study methodology was identified from the literature as a way to undertake an in-depth exploration of RNs' clinical nursing practice within the context of Māori Health Provider services. Furthermore, the literature review identified that the pedagogy of critical inquiry had been successfully utilised in nursing research. The literature demonstrated how critical inquiry empowered RNs to question current practice and service provision leading to effective changes and improved health outcomes (American Nurses Credentialing Service, [ANCC], 2003; Neale, Thapa, Boyce, 2006; Courtney & McCutcheon, 2010).

International and national literature demonstrated an increased awareness of indigenous rights and the effects of colonisation. Cultural re-affirmation and the positive benefits that this has brought are evident in the literature from the late 1980s onwards. For example, revival of language, changes in Government policy and legislation and culturally appropriate health care which have the potential to improve health, wellness and socio economic status in a synergistic way (Moran, 2000; MOH, 2003b, MOH, 2005; MOH, 2005a; WHO, 2007).

Further themes identified from the literature review were directly related to type II diabetes. A substantial amount of the literature had a strong genetic focus and it was unclear whether there would be any actual benefit for indigenous peoples from much of this research (Bushfield, et al, 2002; Martini & Welch, 2005). Research which focused on human biological interaction within society has identified a number of hormones implicated in the development of type II diabetes which may influence social policy and public health strategies in the future but it is unclear how this knowledge currently influences policy makers or clinical nursing practice (Pickup, 2004; Valeggia, et al, 2010).

Clinical guidelines related to type II diabetes and the research underpinning these revealed many discrepancies that may adversely affect health professional decision making and cause confusion amongst the profession, although current research is underway within the context of Aotearoa/New Zealand that may address these issues. Discrepancies in clinical assessment/decision making tools have the potential to adversely affect health outcomes for

people with type II diabetes (NZGG, 2003; NZGG, 2005; Wells & Wiltshire, 2005). Therefore further guidance would benefit health professionals and the question of lifetime risk rather than five or ten year risk should be the focus when assessing CVD risk for individuals who have a diagnosis of type II diabetes.

National and international research highlighted changes in Government policy, re-orientation of health service provision and the role and scope of practice of RNs, demonstrating the complexities that influence current nursing practice (Polit, Tatano, Hungler, 2001; Courtney& McCutcheon, 2010). A small amount of qualitative research was found that specifically focused on RNs' interaction with clients and/or the health service. The research was predominantly undertaken in secondary care particularly ICU or other acute services.

A strong sense of evolution within the role and scope of clinical practice of RNs was evident. The concept of evolution was woven through most of the themes discussed in this chapter. Although the key themes that emerged from the literature review were distinct bodies of literature they were interwoven and inform the focus of this research. In the next chapter the methodology, methods, design of this research and analysis of the data will be outlined and discussed in relation to the aims of the research.

Chapter Four - Methods

“Whāia te iti kahurangi ki te tūohu koe, me he maunga teitei”

“Pursue excellence should you stumble, let it be to a lofty mountain”

Māori Proverb – Anonymous

Introduction

The previous chapter outlined the literature influencing clinical nursing practice within the context of PHC, indigenous health and type II diabetes. Key themes from the literature were identified and discussed in relation to the research. The notion of evolution was evident within each theme that emerged from the literature review. Exploration of the literature highlighted the complexities that influence current nursing practice.

Identifying RNs’ perceptions of those elements of health care delivery that facilitate or create barriers when working with individuals who have type II diabetes are important aspects of re-orientating services to improve health outcomes (Polit, Tatano, Hungler, 2001; Courtney & McCutcheon, 2010). There is potential to challenge and change elements of the current system to improve health outcomes (Robson & Harris, 2007; NZNO, 2007; NCNZ, 2010). Consequently, exploring RNs’ experience in this context is important when considering the increasing incidence of type II diabetes, associated complications, the aging population and the increasing strain on national health resources.

Therefore, this chapter will provide an overview of the theoretical ideas and justification of the research methodology used, and the key features of the research design, ethical considerations and data collection will be discussed. The literature review identified qualitative research as an appropriate methodology that reflects the aims of this study (Greenhalgh & Taylor, 1997; Polit, Tatano, Hungler, 2001; Green & Thorogood, 2004; Finlayson, Sheridan, Cumming, 2009; Courtney & McCutcheon, 2010; Handley, Pullon, Gifford, 2010). Qualitative research allows exploration of interactions to develop understanding of people and their environment that acknowledges the relationship between individuals and the way that they view their world. (Fitzgerald & Field, as cited in Courtney, 2005).

Qualitative Research

Qualitative research has been used to capture the perspective of patients, family and nurses within the context of their experience. This adds richness and depth of understanding and can contribute to the appropriateness of care (Fitzgerald & Field, as cited in Courtney, 2005; Courtney & McCutcheon, 2010). The research employed case study as a research method to fully explore the context of RN participant's experience at three localities in the Wellington region (Yin, 1994). A detailed exploration of each case was undertaken and then triangulated prior to establishing the significance of emerging themes (Yin, 1994; Neale, Thapa, Boyce, 2006). Following the individual analysis of each case a concept map was used to amalgamate themes and sub-themes. The rationale for this was to allow a comprehensive exploration of facilitators and barriers and ensure anonymity was maintained.

Thematic analysis identified three over-arching categories. A number of sub-themes that interacted and overlapped emerged from the data. Significantly, the themes and sub-themes were identified as both facilitators and barriers depending on the context. The study was informed by the pedagogy of critical inquiry (Brenkman, as cited in Crotty, 1998).

Theoretical Approach

Epistemology is the theory of knowledge and provides the philosophical stance that informs research methodologies (Crotty, 1998). The theoretical ideas underpinning this study are those of Paulo Freire and members of the Frankfurt School. This approach positions critical inquiry and reflection on social reality within the context of power and oppression (Freire, 1996; Crotty, 1998). The Frankfurt School were a group of socio-political analysts who believed in the idea of a just and equitable society and argued that people could only achieve cultural, economic and political control of their lives through emancipation and empowerment (Tripp, 1992; Crotty, 1998).

The philosophies of the Frankfurt scholars directly relate to the nursing profession, Māori health issues and their relationship to Te Tiriti o Waitangi/Treaty of Waitangi. The articles of Te Tiriti o Waitangi/Treaty of Waitangi relate to governance, sovereignty, self determination and equity between Māori and other New Zealanders and provide a framework for working in

partnership to ensure Māori holistic models of health and wellness are incorporated into health care delivery (Cram, 1999; McKinney & Smith, 2005). The design of the study is situated within this context as the intent of Te Tiriti o Waitangi/Treaty of Waitangi is one of empowerment. The principles of Te Tiriti are evident in health legislation and nursing practice competencies and support the theoretical ideas underpinning the research (Ramsden, 2002; MOH, 2003; McKinney & Smith, 2005; Wipa (Ed), 2005; Simon, 2006).

Critical research seeks to develop emancipatory knowledge by highlighting the often subtle power relationships within society and the relationship between power, culture and dominative relationships (Friere, 1996; Crotty, 1998). This is important to consider as nursing and health services are dominated by traditional hierarchical structures that may influence and affect current nursing practice (MOH, 2003; Wipa, 2005; Simon, 2006). Freire (1996) identified that people have a relationship with their world that is both subjective and objective resulting in the act of knowing. This interaction contributes to the development of commonly held values and social structures that have the potential to perpetuate social injustice and hegemony (Freire, 1996).

Furthermore, empowering RNs to transform the culture of the health care environment requires an awareness and understanding of the context, culture and traditions embedded in the current health care environment and clinical nursing practice (McCormack, et al, 1999 as cited in Courtney & McCutcheon, 2010). Facilitation of RNs to critique their practice from a strong evidence base and effect practice change are key aspects of improving health outcomes (Krothe, et al: 2004; Torrisi & Hanson-Turton, 2005; RCN, 2010). Critical inquiry has been successfully utilised in clinical nursing practice by allowing RNs to identify factors in their environment that create barriers or facilitate them to contribute to improved health outcomes (American Nurses Credentialing Center [ANCC], 2003).

The literature review identified how critical inquiry has been utilised to improve clinical nursing practice and health outcomes for example at Magnet Hospitals and Practice Development Units (ANCC, 2003; Courtney & McCutcheon, 2010). RNs are empowered to question current practice and make evidence based changes to improve health outcomes. Arising from informal discussion with RN participants and colleagues, there was a desire that the findings would be disseminated widely to facilitate discussion and potentially be a

catalyst for change to improve health outcomes. In the next section research methodology will be discussed in relation to the aims of this research.

Research Methodology

The pedagogy of critical inquiry is closely aligned with the aims of the research and facilitated the exploration of nurses lived experience. Critical inquiry has been successfully utilised in clinical nursing practice and nursing research and acknowledges that people have an interactive relationship with their world that is both subjective and objective (Fay, 1987 as cited in Courtney & McCutcheon, 2010). This interaction is affected by cultural, social, economic and political influences. The research utilised critical qualitative research to capture the complexities of human behaviour within society (Brenkman, as cited in Crotty, 1998). Critical qualitative research allows exploration of what makes systems work the way that they do and how this affects outcomes.

Additionally, case study methodology provided a way to undertake an in-depth exploration of the data and provided context. A case study approach allows individual analysis of each case with a focus on understanding those things that affect each individual study in a comprehensive and holistic way. Case study provides an opportunity to explore similarities, differences and complexity in relation to the context and is important for this research which is undertaken with RNs employed by three Māori Health Providers (Mays & Pope, 1995; Yin, 2003; Neale, Thapa, Boyce, 2006).

The literature review demonstrated the value of case study in exploring phenomena and demonstrated that case study is an accepted and valued methodology used in nursing research (Susan & Susan, 2009). The literature review highlighted the complex factors involved in the development, diagnosis and management of type II diabetes. However, very little research was found that related to how RNs' clinical practice is influenced by the health care system when working with individuals with a diagnosis of type II diabetes.

Qualitative research seeks to gain an in-depth understanding that accurately reflects individuals' perceptions and this is a critical component of the research (Key, 1997).

Qualitative research methods aim to explore and interpret phenomena to expand understanding (Crotty, 1996). The advantages of using this method are the richness and depth of understanding that can be achieved in a holistic manner. Qualitative researchers frequently approach participants from specific groups in order to explore and expand understanding of the participants' experience (Tellis, 1997). Qualitative research informs evidence based practice and the rationale will be discussed with the aim of giving an accurate account of the data.

When undertaking qualitative research it is important to acknowledge that we come with an understanding based on our culture and worldview which affects the way we interpret, interact and make sense of events. Culture and enculturation within society provide us with knowing and understanding; it is how we make sense of our world and shapes our thinking, behaviour and worldview (Crotty, 1996). Pre-conceived ideas based on our worldview may influence how we interpret data and it is imperative to identify and acknowledge these when undertaking qualitative research (Mays & Pope, 1995).

There are a number of issues that must be addressed when undertaking qualitative research in order to establish the reliability and validity of the data (Richards & Emslie, as cited in Courtney, 2005). Triangulation strengthens the credibility, validity and reliability of qualitative research and is a key component of this research research design (Greenhalgh & Taylor, 1997). Ensuring validity and reliability are important aspects to consider when undertaking qualitative research and will be discussed later in this chapter (Crotty, 1996).

Research Design

Introduction

Prior to commencing the research a number of factors requiring consideration were identified that influenced the research design. The factors identified were resources, personal commitments, employment commitments, funding, ethics, recruiting participants, timely access to participants and ethical considerations. The most important factor that was considered related to the value and benefit of the study to RN participants and Māori Health Care Providers. I considered and reflected on the following issues:

- I am Scottish and my culture is different from both Māori and New Zealand European cultures
- Relative inexperience within the New Zealand context (having arrived in 2004 from the UK)
- My values and beliefs in relation to health and wellness are predominantly based on a western biomedical paradigm
- Value and relevance of the research for Māori
- Any potential positive, negative or unexpected/unintentional outcomes
- The contribution to Māori health
- Dissimination of findings

I consulted with RN colleagues including Clinical Nurse Managers who had been, or were employed by MHPs, members of Māori Health Care Provider Rununga and Nurse Lecturers from the Bachelor of Nursing Māori Programme during the twelve month period prior to commencing the research. The research focus was informed and refined during this period of korero. Many rich, interesting and challenging conversations were undertaken and the process was of great value. I underwent a period of personal growth and developed a new understanding. Relationships slowly developed and I greatly valued the contributions made by individuals who altered my perspective and added to the focus and design of the research. The theme of evolution was apparent as the research question was revised and refined. Ethics approval (Appendix 5) was obtained and will be discussed later in this chapter.

Participants

The concept of evolution is woven throughout the research and was pivotal in influencing the study sample. Five Māori Health Care Providers that had been established and evolving since the early 1990s in the Wellington region were identified and a two step process was used to contact participants (Timu-Parata, 2006). Initially the practice manager and/or clinical nurse manager were contacted informally by telephone to discuss the research, prior to contacting the RN participants. This approach would ensure that the MHPs were informed and aware of the research; the research would not interfere with service provision and was approved by the governance committee prior to contact with RN employees.

The response was positive from practice managers and/or clinical nurse managers, however due to workload and operational issues one MHP later declined. A second MHP that previously agreed to my contacting RNs employees then underwent a period of high staff turnover. Operational requirements and orientation of new staff became a priority and the MHP declined the invitation to participate in the study. The Practice Manager and/or Clinical Nurse Manager from the remaining three Providers then sought approval from the Governance Committee at each locality. The Participant Information Sheet (appendix 2) was provided for these meetings and I was available to discuss this further if requested.

Approval was obtained from the governance committee at each locality and RNs were then invited to participate by letter (Appendix 3). This was followed up by e-mail and telephone contact. RNs employed by each provider received a participant information sheet (Appendix 2) outlining the main aim of the research and their rights. One potential participant requested further information. An informal meeting took place and the research was discussed in more detail with the RN.

The next step of the research involved arranging focus group interviews at each locality. Significant challenges occurred during this phase of the research in relation to arranging a suitable time for meeting RN participants who were required to form a focus group at each locality. Arranging a convenient time for the RNs, facilitator and researcher was challenging due to workload and operational commitments. The issue for RNs related to a time that would not impact on service provision and would suit all participants at each locality.

Furthermore, arranging focus group interviews was complicated by the time of year that the focus group interviews were due to take place. The influenza vaccination programme was underway and winter pressures, for example, increasing numbers of individuals presenting with acute exacerbation of asthma or COPD impacted on RNs workload and available time. Specific aspects of these challenges will be discussed later in this chapter.

Additional issues that could have potentially impacted on the research were identified during this phase and these required careful consideration. A potential limitation was related to my own experience as an RN with more than 25 years experience in PHC and over sixteen years experience of working with individuals with type II diabetes. There was a concern that my knowledge and enthusiasm would influence the focus group discussion. Further concerns

were related to my inexperience. I had never conducted a focus group interview and did not want to miss any information that would be useful to give context when interpreting the data.

Following discussion with colleagues who had undertaken research and guidance from my supervisors, I decided to have someone else to facilitate the focus group interviews. A colleague who had undertaken research within the Māori community in the past and who was experienced with both individual and focus group interviews agreed to be the facilitator. I was present to make a floor plan and to take notes but was not involved in the interview process.

Design

As previously discussed, critical inquiry informed the design of this research and is philosophically aligned to the aims of the research. Rigour ensures that all steps in research are clearly documented and undertaken, with a strong attention to detail. This ensures that results are accurate and transparent to others (Taylor, Kermode, Roberts, 2006). An aspect of rigour considered prior to commencing the research was researcher bias and this was addressed in two ways.

Firstly, the facilitator conducted the focus group interviews and although present I was not involved in this process. Secondly, the transcripts were read independently by myself, facilitator and primary supervisor to sort and code themes before discussing the main themes and sub-themes that emerged. The themes and sub-themes identified were closely aligned and the facilitator and supervisor concurred with my results (Mays & Pope, 1995). A detailed and logical account of the methods and processes used in this research will be included later in this chapter which would enable the study to be replicated at a later date (Taylor, Kermode, Roberts, 2006).

Validity in qualitative research has two components, internal validity and external validity. Internal validity is concerned with the way the researcher interpreted and represented the views of the participants. All participants were offered the opportunity to view the transcripts from the focus group that they attended. Participants declined the opportunity to view the transcribed data at each locality. The reason for this was not explored. Internal validity was

maintained by having the transcripts independently read and coded by the researcher, facilitator and primary supervisor. Field notes from each focus group were utilised to add context and matched the thematic analysis of the transcripts. The transcripts were checked by viewing them whilst listening to the tapes to ensure that the analysis captured the intention of what each participant was saying.

Additionally, validity also refers to external validity which is concerned with how the results are, or can be applied to other settings (Taylor et al, 2006; Schneider, Whitehead, Elliott, Lobiondo-Wood, Haber, 2007). In order to address external validity the research design included a detailed case study of each focus group then compared and contrasted the emerging themes. There are limitations which must be considered in relation to external validity as the research was very small, engaging RNs from only three MHPs in the Wellington region. There are also limitations that may affect external validity, these relate to the geographic location of the MHPs, which are urban and this may not apply to semi-rural or rural MHPs. These aspects will be addressed in the discussion chapter.

Equally important in the design of the research was the decision to use focus groups. Focus group interaction is a method that encourages people to communicate with each other during the interview and allows detailed exploration of their experience. This was considered to be an appropriate method to explore the research question (Fontana & Frey, as cited in Denzin & Lincoln (Eds), 2000). Focus groups have been successfully used to capture experiences, opinions and attitudes within a social context where each individual in the group is linked by a shared characteristic (Basch, 1987; Hansen, 2006).

Focus groups usually consist of four to ten participants as smaller numbers can fail to generate discussion and larger numbers can become unwieldy (Hansen, 2006). Potential RN participation for the focus groups fell within this number and shared occupation and employment status. The researcher considered that focus group discussion would assist individuals to explore and clarify their views.

Next, the use of a facilitator was important as discussed previously. An additional benefit was identified as the facilitator was Māori, an RN, experienced in research interviewing and had been the first RN to develop a Māori Health Provider service in the Wellington Region in 1992 (Timu-Parata, 2006). The potential for facilitator bias was discussed. However the

previous research experience of the facilitator allowed her to guide and support the group. The facilitator conducted taped focus group interviews using a semi-structured interview technique (Fontana & Frey, as cited in Denzin & Lincon, 2000). A facilitator guide (Appendix 4) consisted of three questions and prompts were derived from the aims of the research, and this was used by the facilitator to ensure consistency across each group.

Following this, case study was identified as an appropriate method to employ as it enables in-depth investigation and exploration of phenomena holistically (Yin, 1994). Case study research allows us to develop understanding of complex issues within the real-life context and was appropriate for the purpose of this research. Case study provided the framework to construct the design and ensure internal and external validity and reliability (Stake, 1995). This method enables systematic enquiry and individual in-depth analysis of each case and has been successfully used to explore primary health care delivery (Farmer, West, Whyte, MacLean, 2005). Yin (1994) states that using multiple sources of data and maintaining a chain of evidence are essential components of robust case study design.

The study utilised data from three focus groups prior to triangulating emerging themes to ensure construct validity (Yin, 1994). Direct observation and policy documents were also utilised and informed this process. However, due to the sensitive nature of the current contract driven primary health care environment the researcher was unable to access actual contracts. Case study allowed the research to focus on each individual provider in order to understand the complexity of each service and the way the current primary health care system impacts on RNs working in each of these environments prior to triangulating the data (Stake, 1995; Yin 1994). For example, each set of mind maps, field notes and policy documents were re-checked for similarities and differences and notes were made and amalgamated onto a composite mind map. Three over-arching categories emerged from the data and a number of sub-themes became apparent. Each theme and sub-theme overlapped, interacted and impacted on the other.

Furthermore, case study employs triangulation as a research strategy to increase confidence in the interpretation of data. Each case can be treated individually and then used to contribute to the analysis of the whole research (Yin, 1994; Stake, 1995). Triangulation of data ensures accuracy of data interpretation and this may include data triangulation; investigator triangulation; theory triangulation and methodological triangulation (Stake, 1995; Patton,

2002). The research predominantly employed data source triangulation and investigator triangulation to ensure rigour.

Thematic analysis is defined as systematic sorting, coding and identification of themes that emerge from data in order to gain meaning and understanding and was employed in this study (Ryan & Bernard, as cited in Denzin & Lincoln, (Eds), 2000). Using terms and meanings that emerge from data provides a way to identify and categorise themes and sub-themes (Fain, 1999). The process of thematic analysis for this research included utilising field notes and critical inquiry provided a framework to interpret and code the data (Crotty, 1998).

Data was initially analysed using NVivo software as well as systematically colour coding themes of transcribed manuscripts. All manuscripts were checked a number of times and then checked against the taped conversations. Manuscripts were also compared with field notes. Notes were made of emerging themes and sub-themes. These were used to make a mind map of each interview (Ryan & Bernard, as cited in Denzin & Lincoln (Eds), 2000). The mind maps were then checked against the field notes and manuscripts to ensure accuracy.

The process was very circular and emerging themes generated multiple spirals or sub-themes. Themes and sub-themes overlapped. Manuscripts were independently categorised and coded by the researcher, facilitator and one supervisor prior to being discussed, as investigator triangulation is an accepted way to ensure accuracy (Stake, 1995; Patton, 2002). The themes and sub-themes identified were very accurate and in alignment. Triangulation can also be achieved by combining data from multiple sources to examine phenomena (Yin, 1994). This research predominantly employed data source triangulation that was inclusive of transcribed interviews, policy documents, direct observation and investigator triangulation to ensure rigour.

Lastly, reflection was a technique that I used to critically examine and analyse my assumptions and insights (Courtney, 2005). As an RN, I was used to using critical reflection as a learning tool to explore the way that my own values and beliefs impact on interpretation, interaction and responses to clinical experiences. Reflection facilitates our ability to effectively develop new understanding of clinical experiences. Reflection was used to explore my own values and beliefs through reading widely, engaging in discussion with colleagues/supervisors and writing a journal.

Reflection was an important component of the study as this process provided me with a framework to facilitate my understanding throughout the research process. Cultural safety assists us to understand our own worldview and how this may affect our clinical practice. Cultural safety enables us to be responsive and respectful of others and to provide services our clients define as safe and acceptable and these principles assisted me as I engaged with MHPs and RN participants. While Kaupapa Maori research methodology was not used in the thesis, Kaupapa Māori principles broadly informed the research process and provided a framework for reflection. I utilised these principles through reflection to develop my understanding throughout the research process.

Ethics

Ethics approval was obtained from the Central Regional Ethics Committee, Wellington, on 26th June 2010 [Reference CEN/10/05/018 (Appendix 5)]. The research proposal was presented to The Board of Studies at Whitireia Community Polytechnic who commended the proposal and approved funding toward the research (Appendix 6). There is a Memorandum of Understanding (MOU) between Te Rūnunga o Ngāi Tahu and Otago University. Researchers at Otago University who undertake research with Māori must also seek approval from Ngāi Tahu Research Consultation Committee.

Subsequently, approval was granted and the following recommendations were made (Appendix 7):

- That ethnicity data be collected as part of the research
- Findings are disseminated to Māori Health Providers
- A copy of the research will be given to the committee
- Self-identification of ethnicity and descent are included as a component of data collection.

The committee considered the research of importance to Māori health.

Additionally, it was important to consider that the researcher is not of Māori descent and as a researcher needed to ensure how to uphold ethical research principles throughout the duration

of this research. This was a critical element because the research would be undertaken with Māori Health Providers and some RN participants may self-identify as Māori. The core of Kaupapa Māori principles is emancipatory therefore the pedagogy of critical inquiry is appropriate from this perspective (Friere, 1996; Crotty, 1998; Penhira, Cram, Pipi, 2003).

Mead (2003) defines the concept of Kaupapa Māori in relation to research by describing the features necessary to ensure that collaborative research is undertaken and ethical principles upheld. Key features include respectful consultation and acknowledgement of the seven Kaupapa Māori practices which ensure that everyone connected with the research is enriched, empowered and benefits from the research (Mead, 2003; Cram, as cited in Tolich (Ed), 2001). Māori research ethics are informed by, and inclusive of the provisions of Te Tiriti o Waitangi/The Treaty of Waitangi which include the principles of protection, participation and partnership. Although Kaupapa Māori research practices were not used within the research, these principles informed the research process. The pedagogy underpinning the research was well aligned to these principles (Friere, 1996; Crotty, 1998).

During the twelve month period prior to commencing the research I consulted widely within the Māori community and the research question/study was refined (see acknowledgements). These valuable contributions shaped the whole research. A fundamental aspect of consultation and collaboration was allowing adequate time to develop equitable relationships and the importance of this cannot be underestimated. The facilitator is Māori (Ngāti Kahungunu) and I was fortunate to have her as a guide and mentor throughout this phase of the research.

Data Collection

During the data collection phase of the study a systematic approach was used by the facilitator and researcher at each locality to ensure consistency. An important component of this was the semi-structured interview guide (Appendix 4). Each focus group was allocated a number prior to commencing the interviews to maintain consistency and anonymity. The interviews were held at a time convenient for the RN participants. Potential venues were offered to each focus group and the venue most convenient and chosen by each group was a room at each Māori Health Provider Service. The venue was booked well in advance of the

appointment time. Light refreshments were provided. The researcher and facilitator arrived at least 20 minutes prior to each appointment to ensure that the room and equipment were organised before the arrival of participants.

Each focus group interview will be discussed in detail later in this chapter however the procedure used at each venue was consistent and will be outlined here. The researcher ensured that the facilitator and researcher were not sitting next to each other at each venue to encourage equitable relationships as this could create potential for a power relationship which could have affected the dynamics of the focus group (Polit, Tatano, Hungler, 2001). All interviews were taped using a digital recorder which was very small and inconspicuous (Polit, Tatano, Hungler, 2001).

The researcher was present at each focus group interview to take field notes but did not participate in the procedure once introductions had been made. The main points from the field notes were clarified with participants at the end of each meeting to ensure that an accurate summary of the interview was captured. Procedurally this was important to ensure that the researcher had correctly interpreted what had been said. This was important in order to demonstrate credibility and rigour (Polit, Tatano, Hungler, 2001).

The facilitator introduced herself and included a brief outline of her career and interest in the research. Then the researcher was introduced before giving an explanation of why the researcher wanted to conduct the research and what the research hoped to achieve. Each member of the focus group was given an opportunity to introduce themselves. Then the interview process began with an overview of the research. The key points of the consent form and maintaining confidentiality were outlined and a request made for participants to provide self-identification of ethnicity and descent. Copies of the facilitator guide form and consent forms were provided and consent obtained prior to commencing the interview (Appendix 4; Appendix 8).

Key elements of informed consent are: participants are fully informed of the research including actual or potential risks, benefits, procedures and that the participant understands these. Further aspects of informed consent that were discussed related to maintenance of confidentiality and freedom to withdraw at any time (Fain, 1999). Maintenance of confidentiality was outlined in the participant information sheet and consent form (Appendix,

2; Appendix 8). Copies of the facilitator and transcriber confidentiality forms were available for participants to view following introductions and prior to the interview commencing (Appendix 9; Appendix 10).

The procedure to protect and maintain confidentiality was informed by Otago University Thesis and Dissertation Guidelines. During the study the researcher needed to access information frequently and a locked filing cabinet at home was used to safeguard tapes, transcripts, field notes, notes and mind maps of emerging themes. A laptop was purchased for personal use only and was protected by a password. The laptop and USB device were also secured in the locked filing cabinet. Following completion of the study tapes will be stored in a locked filing cabinet secured with computer password entry for five years at the Wellington School of Medicine, Otago University, before being professionally destroyed (Appendix, 2; Appendix 8).

The facilitator conducted semi-structured focus group interviews by using the facilitator guide which ensured that discussion focused on the aims of the research. This also ensured consistency and allowed flexibility to explore the RNs' experience. The interviews flowed easily and discussion developed naturally as RN participants shared their experience. Ethnicity data was requested at each meeting and some participants provided this information. Details are recorded in Table 1.

TABLE 1. Participant Ethnicity Data (self-identification)

Researcher	<ul style="list-style-type: none"> Scottish – Clan MacGregor, Clan Cameron 		
Facilitator	<ul style="list-style-type: none"> New Zealand Māori – Ngāti Kahungunu 		

New Zealand European	New Zealand Māori	Pacific	Other
2	4 <ul style="list-style-type: none"> Māori Tainui Tuhoe Te Aitianga a Mahaki 	2 <ul style="list-style-type: none"> Tokelaun Samoan 	1 <ul style="list-style-type: none"> British

*Note: not all participants provided ethnicity data.

Māori Health Provider Services

The following is a brief overview of the MHPS where the focus group interviews were held. Identifying features have been removed to maintain confidentiality. All information has been obtained from the Māori Health Provider Services, District Health Board and/or MOH documents. As the documents used as sources of this information contain identifying features they have not been included in the Reference list.

TABLE 2. Māori Health Provider Service Features

Māori Health Provider 1	<ul style="list-style-type: none"> ▪ The philosophy of this service is to assist the community to be aware of health issues, by providing information, options and choices which will empower Māori and non-Māori to develop and maintain a healthy lifestyle. ▪ Has evolved since the early 1990s ▪ Provides a comprehensive service to a population predominantly deciles 7-10 ▪ Provides GP and nurse-led services ▪ Employs fourteen RNs (not all are FTEs) ▪ Comprises four Medical Centres and one Health Unit. One service is marae based. ▪ Provides an additional Mental Health Service, Drug and Alcohol Service and a Disability Service ▪ Provides outreach and mobile provisions to improve access ▪ Enrolled population – over 12,000, of which over 75% identify as Māori or Pacific ▪ Provides additional support for a large population who are enrolled elsewhere
Māori Health Provider 2	<ul style="list-style-type: none"> ▪ The service philosophy is founded upon and captures Tikanga Māori values ▪ Initially established in the 1980s to offer support, counselling and advocacy services for Māori ▪ Has evolved to provide a wide range of

	<p>social and health services for a population comprising mainly decile 9-10</p> <ul style="list-style-type: none"> ▪ Marae based services include outreach, immunisation, respiratory, smoking cessation, breast and cervical screening and Tamariki Ora ▪ Employs eight RNs who closely collaborate with other providers in the area
Māori Health Provider 3	<ul style="list-style-type: none"> ▪ A key value of the service is manaakitanga (supporting others). This value is embedded in how the clinic engages with individuals and their whānau. Manaakitanga underpins the way the service collaborated with other providers and the community ▪ The guiding principles are based on Māori concepts and cultural practices for example: hui, karakia and pōwhiri are features of the day-to-day operations of the clinic ▪ Established in 1995 to provide primary health care services for Māori and other groups in the area ▪ The Clinic is marae based and provides services within a community with a deprivation index of Deciles 9 and 10. ▪ A range of services, including health promotion and health education, asthma, cervical and breast screening, tamariki ora and whānau ora ▪ The service is free and the majority of these are mobile and undertaken in the home ▪ A small on-site GP service has been developed in collaboration with other local providers with the aim of improving access ▪ The service employs 2.2 FTE RNs

*Note: FTE = Full Time Equivalents

Focus Group Interviews

Next, a brief outline of the arrangements for each focus group interview will be provided. Māori Health Provider 1 (MHP1) was consulted and following discussion, the most convenient time to hold the focus group interview was to attend the RNs' monthly breakfast meeting held at a Medical Centre in the group. Unfortunately the agenda for the meeting was very full and the focus group interview was delayed until the following month. The agenda for the next meeting was also full and an alternative breakfast meeting was arranged.

The focus group interview took place according to plan. However, some RNs who had expected to participate had commitments that prevented them from attending. RN representation from the Health Unit did not receive the message informing them of the date and time of the focus group interview. Four RNs participated in the focus group interview. Four participants are the minimum recommended number for conducting a focus group therefore the meeting proceeded and rich discussion occurred (Hansen, 1996).

Subsequently, one of the RNs from the Health Unit who worked with individuals with a diagnosis of type II diabetes was still keen to participate. The researcher was very keen to listen to her experience. The Health Unit held different contracts and the experience of RNs working in this environment potentially offered a different perspective. The contribution enriched the depth of the research. Although this was outside the planned format of the study, that is focus group interviews, qualitative research is concerned with discovering the meaning of social experience (Fain, 1995; Crotty, 1996; Key, 1997; Schneider, et al, 2007). I felt that it was important to explore her experience as this would enrich understanding. The interview was undertaken following the same procedure as the focus group interviews and for the purpose of data analysis the interview will be allocated the heading Māori Health Provider 1a (MHP1a).

Similarly, a convenient time was arranged with MHP2 and six RNs were expected to participate in the focus group. Unfortunately two RNs were unable to attend at very short notice due to work commitments. The focus group proceeded with four RN participants. The same procedure was followed during each focus group interview process to maintain consistency.

Following this, MHP3 was contacted and a convenient time arranged. Unfortunately, RN participants were unable to attend the focus group due to unexpected work related issues. However, a community health worker (CHW) arrived and was interested in the study. The CHW provided valuable background that gave both context and insight, which informed the data interpretation. This opportunistic event captured the philosophy, essence and strength of the service and a new date and time were arranged. Two RNs participated in the focus group interview which is less than the recommended number; however capturing the experience of the RN participants enriched the study (Hansen, 1996).

In summary, a qualitative case study approach was utilised for this research of RNs perspective of how the current PHC system facilitated or created barriers for holistic clinical practice. The pedagogy of critical inquiry seeks human emancipation by identifying domination of people in society and provides a description of the interactions that perpetuate inequities in society (Crotty, 1998). Critical inquiry aims to decrease domination and improve inequities and was an appropriate method that informed the research (Crotty, 1998).

Challenges

A number of unexpected challenges occurred in relation to undertaking focus group interviews. The issues related to RN participants' work commitments that resulted in fewer participants contributing to the research. Notably, each MHP worked in communities experiencing poor socio economic status (Decile 7-10) which highlights inequity in society and the ongoing effects of colonisation (MOH, 2002; MOH & University of Otago, 2006; Robson & Harris, 2007). Further challenges arose in relation to availability of the researcher and facilitator. The following chapter will outline findings from the thematic analysis of each focus group interview.

Chapter Five - Results

“If we could first know where we are, and whither we are tending, we could then better judge what to do, and how to do it.”

Abraham Lincoln (nd.).

Introduction

In this research, data were systematically analysed from three focus groups and one interview prior to amalgamating emerging themes to ensure construct validity and to illuminate understanding (Yin, 1994). Case study research provided the framework to ensure systematic interpretation and presentation of data (Yin, 1994; Stake, 1995). The systematic processes used to analyse the data have been outlined in earlier chapters. The over-arching themes that emerged related to funding and contracts, the primary health care context and type II diabetes. The following table outlines these key themes and sub-themes.

Next, quotes have been used to capture the essence of the RN participants’ perspectives, highlighting the participants’ experience and illustrating similarities and differences. The quotes have been identified as follows: (*MHP1*). Each focus group has been equally represented by the quotes used, with the exception of MPH1a. As MHP1a was an individual interview, 50% fewer quotes were represented from this source. The significance of themes that emerged from each case analysis will be explored in relation to the literature review in the Discussion chapter.

TABLE 3. Themes and Sub-themes

THEMES	FACILITATORS	BARRIERS
Funding and Contracts	<ul style="list-style-type: none">• Obtaining Contracts to provide services• Maintaining contracts to provide services• Contracts for Outreach services	<ul style="list-style-type: none">• Unable to access contracts to provide services• Reporting requirements to maintain contracts

	<ul style="list-style-type: none"> • Contracts that facilitate holistic care • Contracts that acknowledge Māori paradigms of health • Contracts that facilitate whānau centred care 	<ul style="list-style-type: none"> • Reporting requirements do not capture or reflect care within Māori paradigms of health • Excessive amount time and data required to undertake reporting to maintain contracts • Narrow focus of contracts creates a barrier to undertake whānau centred care • Strong biomedical focus of contracts
Primary Health Care Context	<ul style="list-style-type: none"> • Opportunistic care • Flexibility of services • Whānau centred care • Intersectoral collaboration • Role of Community Health Workers 	<ul style="list-style-type: none"> • Strong biomedical focus • Inflexibility of service provision • Care provision has a strong individual focus and is not whānau centred • Impact of contract environment creates a competitive internal market
Type II Diabetes	<ul style="list-style-type: none"> • Developing relationships • Self-management • Working within Māori models of health • Access to records • Holistic whānau centred approach 	<ul style="list-style-type: none"> • Time constraints • Contractual requirements affect ability to adopt a whānau centred approach • Individual focus • Biomedical focus • Unable to access records

Funding and Contracts

One of the over-arching themes identified consistently from the data was the role of funding and contracts. This section discusses the sub-themes relating to the funding and contracting environment as expressed by the RNs in relation to their perception of how they influence clinical nursing practice. Data from each focus group has been represented equitably and although some repetition occurs this reflects a commonality in some of the themes that emerged from the data.

Facilitators

“Support, aye, I suppose that would be by the contracts we get from the DHB” (MHP3).

The RN participants highlighted the importance of having contracts that support them to adopt a whānau-centred approach and highlighted the Tamariki Ora contract as a good example of the way funding and contracts support clinical nursing practice. Participants stated that a significant amount of quality indicators and outcome measurements attached to the contracts failed to capture much of the work that was undertaken with whānau.

“I guess we have outreach facilities if we can’t encourage a patient to come in and talk to us” (MHP1).

A recurring theme that the RN participants identified as a facilitator was the ability to be flexible and responsive to members of the community who found coming to the Medical Centre a barrier. RN participants stated that funding contracts that allowed the service to be responsive to individuals and families whom did not access the Medical Centres was very beneficial.

“Because I guess we’re a little bit separate here, being a Māori Health Provider and a separate Health Unit. I feel really well supported to work in a holistic way, because I can spend [pause] I can arrange to spend [pause] have plenty of time, and I can see people at home” (MHP1a).

One RN participant stated how the contract she was employed to fulfil enabled her to be flexible in the way that she engaged with individuals and whānau which increased access to diabetes care. The contract facilitated her ability to be responsive to the needs of individuals and encouraged engagement with their whānau to meet the health needs of the local community. The RN noted how she had been supported to incorporate a whole community approach and Māori health perspectives into her clinical nursing practice. The RN then compared this to her former role as a Practice Nurse to highlight how well supported she was to work holistically with individuals and whānau in her current role.

“Despite the contracts. It sort of keeps me going. Some people do them [pause] has gone back long miles. We all do actually. Talk to people about their diabetes, when we’re really contracted to [pause] other. But as a Māori Health Provider, we take that under our wing, we’re really keen to, irrespective of that” (MHP2).

Participants stated that they were proactive in their approach to diabetes care. Without exception all participants noted that they engaged regularly with whānau who had a diagnosis of type II diabetes. The RNs noted that they did so regardless of funding or contracts for care provision for individuals and whānau who had a diagnosis of type II diabetes. The RNs stated that they worked holistically and utilised a whānau centred approach which was underpinned by the principles of Te Tiriti o Waitangi.

Barriers

In contrast, RN participants also identified a number of barriers that the current contract environment created in relation to clinical nursing practice. The following statements illustrate the way that contracts were felt to negatively impact on health care delivery by RNs who work for Māori Health Care Providers.

“I feel it’s a time thing too. I mean they’ve got 15 minutes, and then they don’t get time to explain properly. And I mean, they don’t understand the language, yeah, I mean, Joe Bloggs doesn’t understand. I don’t think, half the time. You Know? With diabetes, I mean you need lot of time” (MHP1).

RN participants noted that the duration of appointment times and the narrow biomedical focus of contracts created significant barriers. Contracts focused on the individual rather than adopting a whānau ora approach. Participants felt that constraints on time and resources, impact on their ability to work holistically and within Māori paradigms of health and wellness.

“When you look at the stats, it’s really disappointing and disheartening, when you’ve got those target indicators, and I don’t know what it is but she does a really good thing with her patients” (MHP1).

This RN noted the negative impact of the contract environment in relation to her role and stated that the reporting requirements failed to acknowledge the work that she and her colleagues undertook. Further sub-themes identified were related to the need to produce output data to maintain a contract and meeting the needs of the community. Limited scope of contracts and the short term aspect of the contracts fail to support or capture the nature of how RNs work with individuals and whānau.

“I don’t think it’s clear for patients, doctors, nurses, everyone involved [pause] about who does what mmmm a lot of different pockets mmm a different coordinated. No [pause] lack of a coordinated approach, yeah [pause] well even myself as a practitioner, how far do I go [pause] is this my role [pause] it’s not clear cut” (MHP1a).

The RN participant related how the current contract and funding system created fragmentation of services and multiple service providers within the same community. This fragmentation of services created confusion not only for the community but also for the health care professionals themselves. The RN stated that the impact of multiple contracts and funding streams were a significant barrier that impacted on her ability to work holistically with individuals and whānau.

“We’ve had one very small contract [pause] I think it was for a Community Health Worker to follow up people with diabetes [pause] and it was just one small contract, no nurse contract with it” (MHP2).

The RN participants discussed historical issues around capture of contracts. In one case another Māori provider within the area had traditionally held contracts for health service delivery to individuals and whānau with a diagnosis of type II diabetes. The geographic location was still some considerable distance from this service and raised the issue that those individuals who attended this service were unlikely to attend the other provider. None of the RN participants or any RNs employed by this one provider were funded to deliver any service to individuals or whānau with a diagnosis of type II diabetes. Concerns were raised that related to access and service delivery.

“That Community Health Worker was being trained for another position because they had told us that contract was going to go” (MHP2).

RN participants discussed the loss of a short term contract held by the Community Health Workers (CHWs) which was aimed at improving access to services for individuals with type II diabetes. They highlighted issues with the transient and fragmented nature of contracts and the very narrow scope and focus of service delivery which impacted on the service ability to adopt a whānau centred approach. Participants stated that the reporting indicators were limited and failed to capture whānau engagement. MHP2 held a contract for a CHW to work with whānau who had a diagnosis of type II diabetes, but not for RNs. Further discussion related to the limited quality of service provision. RN participants stated that lack of funding had a significant impact on their ability to work with whānau who have a diagnosis of type II diabetes. The following statement further highlights the impact of contracts on clinical nursing practice.

“Well, that we were contracted [pause] if we would have had a contract, that we would actually get paid to do it [pause] like if I were to do a whole lot more in diabetes, then I would be pulled out of doing other stuff that I’ve got under contract” (MHP2).

This quote relates to two significant barriers that were identified in relation to contracts and funding. The first barrier related to the RNs who were working with individuals and whānau with a diagnosis of type II diabetes but were not funded to do so. These consultations were opportunistic. For example whānau who attended for childhood immunisation but had a diagnosis of type II diabetes may receive significant input from the RN. This RN stated that

her practice was underpinned by Māori paradigms of health and holistic in nature regardless of the contract.

Additionally, the second barrier identified by RN participants related to the limited amount of time and resources that could be spent working with whānau who have a diagnosis of type II diabetes as this was unfunded. A tension exists between working holistically with clients who have type II diabetes and fulfilling contractual requirements for other services that were funded, for example, Tamariki Ora or Asthma. RN participants gave examples of how they worked innovatively to overcome these significant barriers.

“Despite the contracts, it sort of keeps me going. Some people do them [pause] has gone back long miles. We all do actually. Talk to people about their diabetes, when we’re really contracted to [pause] other. But as a Māori Health Provider, we take that under our wing, we’re really keen to, irrespective of that” (MHP2).

Without exception all participants were responsive to the needs of whānau who had a diagnosis of type II diabetes regardless of funding or contracts. The RNs stated that they utilised a whānau centred approach.

“It’s more the tamariki ora check. All they check [pause] they don’t check [pause] didn’t really include the diabetes” (MHP3).

“But you still have to remember it aye, because you come back [pause] the pieces of paper [pause] and sometimes you forget aye, because you’re looking after the whole family not just tamariki [pause] so you could be doing asthma, or yeah, smoke free” (MHP3).

It was unclear from the discussion whether the Tamariki Ora contract was whānau centred or whether the RNs actually utilised the opportunity to adopt a whānau centred approach that enabled them to work holistically. The RNs noted the difficulty of having to wait until the end of the day and return to base in order to capture the necessary data required to maintain funding. This also impacted on available time for undertaking clinical nursing practice.

“That’s the narrative that we do in the reports, but you see we should put things down as stats. But you need to put in names aye [pause] and sometimes we don’t know” (MHP3).

Here the RNs discussed contract reporting requirements as a barrier in relation to the opportunistic way that they worked with whānau. Examples were given of how they had accessed family members with a history of type II diabetes and undertaken considerable education with them. They had also used these opportunities to undertake preventative education with other family members. The actual visit was a Tamariki Ora check and the focus was to document this to maintain the contract. Time was a valuable commodity and gathering details of other family members in order to gather statistics would impact on time available to undertake diabetes education.

Furthermore, the RNs were concerned that gathering the necessary data could affect the rapport with whānau and the relationship that they had developed. They noted that good communication and relationship building were essential to work effectively with Māori. Continuing to develop the relationship and undertaking diabetes care were of a higher priority than gathering information for the RNs. An obvious tension existed in relation to time and resources, the need to gather data, undertake contracted care and opportunistic whānau centred care that may, or may not be contracted.

“Who knows, aye all our reports they’re like a book, and I look and think, god I wonder if these people read it? But then we put in pictures too [pause] I think maybe they read our case studies, anyway, because I like reading case studies” (MHP3).

“Because they’ve got lots of information, in those narratives, and you know how sometimes like people tend to look at the figures, rather than all that rich information of the narrative” (MHP3).

The above quotes are excerpts from the discussion about funding and contract reports. They illustrate a number of points raised by the RN participants. There was a tension around the frequency and depth of reporting that had to be produced and how much time was spent producing these reports. The time spent on reports impacted on the time available to undertake clinical nursing practice. The RNs had further concerns about who would read the reports and how this information would be used. They also raised concerns about the way the DHB may focus on the information provided in the reports. The RNs felt that the DHB would concentrate on the numerical/ statistical data. This data did not reflect or capture the context of the community or the nature of the work that the RNs undertook within the community.

The RNs felt that the narrative component of the report provided the context and gave depth to their role and insight of the community. The narrative captured the essence of the work that they did, was whānau centred and reflected the wider determinants of health in the community.

“So I just feel that there are barriers if you do the rules” (MHP3).

“And that they’re not allowed to do this or that aye you know, you don’t fit in that one, two, three, four, five criteria [pause] for them [pause] so no, we can’t help you [pause] whereas we go in with a different approach to that. We do it regardless of whether we are getting paid or not, whether it’s in our job description aye, if it helps them” (MHP3).

The RN participants discussed the narrow focus of contracts. The way the service was funded created significant barriers if you adhered to contracts and reporting criteria. RN participants stated that they used Te Whare Tapa Wha and worked holistically with individuals and their whānau. Participants stated that they frequently worked outside the funded contracts to provide holistic whānau centred care and noted this was an essential component of the service that they provide for their community.

The themes and sub-themes related to the funding and contracting environment will be explained further in the Discussion chapter.

The Primary Health Care Context

The second over-arching theme that emerged from the data was the Primary Health Care environment. Facilitators and barriers were identified by RN participants and statements will be used to highlight these.

Facilitators

“I know it’s really good to see Pacific Island and Māori of course, student nurses coming through. Which is good, I think [pause] the future is going to be a lot better” (MHP1).

RN participants discussed the importance of workforce development in the Primary Healthcare Sector for example, access/support with education and links to educational institutions were highlighted as being supportive by the RN participants. RN participants stated that the increasing numbers of Pacific Island and Māori student nurses had clinical placements with their service. The participants highlighted this as a significant facilitator for the future of Māori Health Provider services.

“I mean all of us have done a basic diabetes course” (MHP1).

As in the quote above, RNs also noted positive outcomes related to having their own educational needs met which enabled them to work at an advanced level to deliver quality diabetes care. However, they also stated that to be a diabetes specialist nurse they must have a minimum of 20 hours clinical practice specialising in diabetes care each week and this was viewed as a barrier due to the varied nature of work in primary health care services. The RNs stated that 20 hours clinical practice did not necessarily relate to competence in this area. They discussed the need to be an expert generalist when working in this environment and that expertise was required in many different conditions. The RNs also noted that this was essential when working holistically with whānau

“And there’s always encouragement to bring families, whānau mmmmm, and things like the diabetes group once a month here, and we have things that involve tikanga Māori.” (MHP1a).

The RN in one service illustrated the way that she worked within the primary health care environment to develop a holistic service when working with individuals and whānau who have a diagnosis of type II diabetes. She stated that culturally appropriate service delivery and engagement with whānau was extremely important when working in partnership with whānau.

“I think the Māori model of health is very much family and spiritual, model of the four cornerstones mmmm [pause] Yeah, Te Whare Tapa Wha. So, sure the physical is part of that but it is so much more” (MHP1a).

“Because you know it’s part of that holistic view of health, we try to include quite a wide range mmmm, so like spiritual things. We have one on giving light. Giving and receiving light. You know in a different environment it certainly would not be part of what you do” (MHP1a).

The RN stated the importance of using Te Whare Tapa Wha within the primary health care system and when working with individuals and whānau. Te Whare Tapa Wha supported the innovative ways that the RN worked with the community, individuals and their whānau. The RN stated that this model provided the framework that enabled her to raise awareness of diabetes, improve access, and undertake health education. This clearly illustrates the importance and impact that contract and funding requirements have on RNs clinical nursing practice. The RN noted the importance of nurturing the whāora of clients, being culturally sensitive and working in partnership, reflecting nursing philosophy in relation to treaty obligations.

“One of the things here, which is really fantastic. No funding for it, and we’d love to do more [pause] we had someone on site with diabetes and her husband had died of diabetes [pause] so we had an evening and she came with [pause] three generations [pause] and we did a presentation [pause] they were all very welcome. Just getting them all there was incredible [pause] we provided healthy kai [pause] it was relationship building [pause] then the Community Health Worker followed up at home [pause] and we know that there were changes [pause] more salads [pause] fruit [pause] veg [pause] and we know that changes were happening. That’s whānau, hapu, iwi. Just absolute teaching, so that the message goes out and they can support one another, yeah” (MHP2).

The RN participants highlighted the innovative ways that they engaged with whānau. MHP2 holds no contracts to enable the RNs to engage with individuals and whānau who have a diagnosis of type II diabetes. The RN participants reported that they provided effective health education and promotion within Māori concepts of health. The RN participants were able to undertake this type of intervention by incorporating the activity into whānau evenings and

noted that whānau act as support and motivators for other whānau. All participants agreed that this was very effective and would like to undertake more of this type of intervention. Although no funding or contracts are held by this provider a significant barrier had been overcome through innovative nursing practice within the primary health care sector.

“It’s not actually really recognised, in the way that you are actually doing the work” (MHP3).

“Yeah, yeah, yeah [pause] they come in at eleven; they start to do exercises at eleven. They go through for an hour and that’s tough exercise for them, you know. It makes them leap all over the place. But anyway they love that exercise. So they come here, do that for an hour and then when they’re eating lunch, we have a speaker” (MHP3).

The RNs discussed the importance of having a whole community approach to health care delivery and in this instance a number of facilitators were identified within the primary health care system that supported the RNs and CHWs to work holistically with individuals and whānau who have a history of type II diabetes. The RNs and CHWs were supportive of each other’s role. This activity was within a contract held by the CHWs and the RNs were closely involved with the group after the activity component of the session was completed. The exercise group was held weekly throughout the year and health kai provided the opportunity to role model a healthy diet.

“And she will go and visit them in their home, if coming to the surgery’s a barrier. So that is helpful”. Yeah, and we’ve got access to the hospital, like in here [pause] and she, we can run them. They’re really good. So we’ve got lots of support there” (MHP1).

Another aspect of primary health care that participants highlighted as an important facilitator was the support of Community Health Workers (CHWs). The role of CHWs was viewed as being valuable to improve access to health services. The CHW role was important to support RNs to access clients and whānau and to assist the development of a good relationship and rapport. Further examples of the value of CHWs were discussed.

“Well, if we helped with your transport would you go? Yes? Well ok [pause] so I think that we are lucky in that way, that we can offer [pause]” (MHP3).

Here the RNs raised three important points that facilitated their clinical nursing practice and engagement with whānau. Firstly, the role of the CHWs supported whānau by being able to provide transport to improve access to health services. Secondly, responsiveness to the needs of the community who were experiencing difficulty accessing services. The RNs stated that the ability to be responsive was supported by appropriate funding and contracts. Finally, the RNs linked this to relationship building and noted how important developing and maintaining relationships was when working with whānau in PHC.

Additionally, these themes were also highlighted by the RNs employed by MHP2. The RNs discussed the value of Community Health Workers when delivering services to people with type II diabetes. The RNs stated that the CHW who worked with clients who had a diagnosis of type II diabetes was Māori, lived in the local community and had a family history of type II diabetes. The CHW had undergone training and utilised her own experience to work effectively with individuals and whānau. Next barriers within the PHC environment will be discussed.

Barriers

“Yeah, there’s nothing adjusted for different cultures within the system.....yeah, I think it’s because we’re not using Māori concepts of health at all” (MHP2).

Participants stated that the current contract environment was monocultural in nature and did not accommodate different concepts of health and wellbeing. Participants agreed that frameworks exist that acknowledge Māori concepts of health, for example, Te Whare Tapa Wha, Te Pae Mahutonga and Te Weke. RN participants stated that these models are not used as a framework for funding, contracts and reporting mechanisms to facilitate delivery health services within the cultural context of Te Ao Māori. Participants noted that services were driven by the need to obtain and fulfil contracts.

“You can just [pause] when you talk to them, and they say [pause] Yep, there’s a history of asthma or diabetes” (MHP3).

Here the discussion focused on the opportunistic way that whānau were engaged and histories were obtained in order to target health education and promotion with the whānau.

Engagement with whānau was highlighted as important to improve health outcomes. The RNs noted that because contact with whānau was opportunistic some family members may not be there and that follow up of those family members proved time consuming and difficult especially if this was outside of the contract. The RNs stated that a whānau ora approach was effective within the primary health care sector and this aspect of clinical nursing practice was not well supported by the current primary health care environment.

The following quotes illustrate how the narrow focus of contracts within the primary health care sector impact on clinical nursing practice. Participants discussed how frequently they worked with individuals and whānau outside of contracted services. RNs stated that it was difficult to undertake holistic whānau centred care within existing contracts.

“Yeah, that’s right, because you’re doing things opportunistically in there all the time” (MHP1).

The RN participants highlighted the opportunistic nature of working holistically with whānau. Participants discussed the importance of trying to engage and work with the whānau. The RN participants stated that their ability to utilise Māori models of health were compromised by the focus on the individual and the opportunistic nature of engaging with whānau which may directly affect health outcomes. The participants directly linked this to funding and contractual requirements.

“And I think everybody’s listening to pick up whānau members, and not just [pause] I actually think that there should be a standard method to pick up whānau members” (MHP2).

“There’s nobody who’s funded to do a family tree and make sure everyone in the whānau [pause] has had screening” (MHP2).

RN participants highlighted the need to engage with whānau who have a history of type II diabetes and stated that the current focus of contracts on individuals was a barrier to effective health care delivery. They felt that whānau support is a strong component of Māori concepts of health and therefore engaging them in education and annual reviews would assist the

individual with diabetes in their self-management of the condition. Participants also noted that whānau members are at high risk of developing type II diabetes and whānau engagement offers the opportunity to undertake preventative education, screening and early detection. Further issues were identified in relation to whānau engagement as the following statement illustrates.

“We’ve got our diagnosed diabetics, but it’s all their families coming in, coming through that your trying to sort of pick up on , and sort of warn them perhaps, about the disease” (MHP1).

RN participants highlighted a number of factors within the primary health care context that directly influenced their practice when working with individuals and their whānau who had a diagnosis of type II diabetes. For example, they stated that a strong focus was placed on individuals rather than whānau and this was highlighted as a barrier to effective health care delivery. Participants noted that this was a very significant barrier for prevention and treatment of type II diabetes.

“Especially for the younger ones around here. And you know, they can buy pies and soft drinks so cheaply on the way to school. And you know, when you drive to work, and you go past the bakery, and Mum’s in their buying all their breakfast and lunch. Yeah. That’s a huge one, I think” (MHP1).

This focus group also highlighted the importance of working within the local community and the way that environmental factors influence the health and wellness of the community. The RN participants discussed how challenging this aspect of primary health care nursing was to develop and stated that this was related to the narrow focus of funding and limited scope of contractual requirements.

Additionally, the participants highlighted the innovative ways that they employed to address health promotion, for example, whānau diabetic self-management sessions held during the evening with a strong focus on diet and relating this to what was available cheaply in the local dairy. The participants noted how well received these sessions were but how difficult they were to arrange due to the current primary health care environment. This highlights how

Māori Health Providers work outside of the scope of contracts to deliver holistic and culturally appropriate care.

“And its PHO indicators for annual review. And I mean if you put the Medical Centres in the middle of the question [pause] I’m not sure where the person is [pause] I doubt if there are any PHO indicators that look at how a whānau are being engaged with what is likely to be a hereditary disease” (MHP2).

The RN participants highlighted the strong biomedical focus of indicators that were programme centred rather than individual or whānau centred within the current PHC system. Because of this focus many services appear to be driven by the indicators rather than the individual or whānau. They highlighted that Māori concepts of health were not supported and may contribute to lack of engagement by individuals and their whānau for annual diabetes review appointments. This perception is supported by statistics which demonstrated poor receipt of this free service by Māori.

Collaboration

RN participants discussed the importance of intersectoral collaboration that contributed to quality of care (Krothe, et al, 2000: MOH, 2005). For example at the facility MHP3, RNs used the diabetes activity group as an opportunity to undertake health education and promotion and would also arrange for guest speakers. Participants discussed how they arranged for guest speakers who would come from various health care sectors and professions, for example, the dietician from the PHO; podiatrist from the DHB; pharmacist from the local community pharmacy. They commented that they had not invited the diabetes CNS from either the PHO or the DHB but did not articulate why. This interesting fact was not discussed further.

The RNs noted that the local pharmacist had made a significant impact on the group. The pharmacist discussed how the common prescribed medications worked, what they were for and why it was important to take them. He discussed the medications in easy to understand lay terms that met the health literacy needs of the group. The pharmacist then related this to his own pharmacy and talked about his drawers full of uncollected medicines which struck a

chord with many in the group and this facilitated a significant amount of open discussion. The RNs commented that they had not followed up with the pharmacist to see if this had improved.

However, a number of significant barriers were identified by participants in relation to developing collaborative relationships in the PHC sector. The following quotes illustrate some of the difficulties encountered.

“The whole thing with primary care is now [pause] is like, if they’re diagnosed with diabetes, so they’ve got their doctor, practice nurse, their optometrist [pause] if that comes back with retinopathy they’re off to Wellington Hospital, if they have diabetes problems they’re off to another hospital [pause] renal [pause] back to Wellington [pause] they may end up back here for the community podiatrist, so the ability to negotiate all this is incredible” (MHP2).

The RNs discussed the multiple service providers that individuals with diabetes may have to negotiate. They related this to access, attendance and the wider determinants of health. They stated that the high deprivation decile of the local community where people have transport and financial difficulty may adversely affect health outcomes. They linked socio economic status directly to health literacy and stated that this may affect attendance and access to health services.

“The way she worked, the Community Health Worker, she introduced herself to all the Medical Centres in the area [pause] some said lovely to meet you but we will not be using your service [pause] and that’s just an underutilised service” (MHP2).

Here RN participants discussed a contract held by the CHW which aimed to improve access for people with type II diabetes to attend diabetes annual reviews, hospital appointments, optometrist and podiatrists. Participants stated that the service was used effectively by this provider but it was underutilised by other providers in the area. Participants were unclear why the service was not well received by other providers highlighting the importance of good communication and intersectoral collaboration.

Type II Diabetes

Facilitators

“I think it’s hard to believe that you’re sick if you don’t feel sick” (MHP1).

RN participants emphasised the importance of developing a good rapport and relationship with individuals and whānau in order to support them to develop understanding and knowledge of type II diabetes. They stated that this was critical to prevent complications and sustain lifestyle changes especially when individuals with a diagnosis of type II diabetes frequently feel well. Co-morbidities and complications are common in individuals who have a diagnosis of type II diabetes and many people feel healthy and well until complications are advanced. Participants noted that a good relationship was important to work in partnership with individuals and their whānau.

“The importance of the relationship, which you know you can do them, and how, if you were able to work with someone so that they overcame their fears [pause] it would be within the framework of working with whānau [pause] but I’m actually only thinking of connecting with the person, first of all [pause] as the basic sort of health. The whole relationship” (MHP2).

RN participants stressed the importance of having time to develop a rapport and relationship with individuals who have a diagnosis of type II diabetes. They stated that the development of the relationship was a highly significant factor when working with individuals and their whānau. Having a good relationship was noted by participants as a key factor that contributed to improved attendance, understanding, ability to self manage diabetes and engage with whānau.

“And yeah, having their diabetes checked aye, and they might say mum doesn’t take her tablets or something” (MHP3).

The RNs emphasised the benefit of working with whānau in the home and the way that whānau support each other. They stated that they were the guest in the home and the potential impact of the power relationship between health professionals and patients was much less of an issue when working in the home. They noted the importance of working within Māori

paradigms of health and engaging with whānau to support individuals who have type II diabetes. The participants also noted the importance of a good rapport and relationship when working with individuals and whānau.

“And yeah, the whole question of whānau that you know being able [pause] I can see someone in the community [pause] home [pause] having that whānau involvement it really can often make the difference to whether someone will want to do something about it” (MHP1a).

The RN stated that it was important to appreciate different attitudes to health and disease as this is influenced by culture and may affect an individual’s responsiveness to health care. She highlighted the importance of working within Māori paradigms of health and engaging with whānau to support individuals who have type II diabetes.

“And we’ve got lots of visual things within the practice that we use, to help with breaking down the barriers, if [pause] you know, with education, if they’re going to understand” (MHP1).

The RN participants noted the importance of incorporating Māori health models when working with whānau and utilising various aids to assist understanding of type II diabetes, management and complications. RN participants valued the variety of resources that they could access to facilitate health education when dealing with the complexities of type II diabetes and associated complications.

Barriers

“One patient I had, he said, ‘Oh you know, look, that’s for your blood pressure [pause] your heart [pause] that’s for your diabetes. Here just take them, make sure you take them.’ But he just threw them out” (MHP1).

The RNs emphasised the importance of having time to develop a good relationship when working with individuals and whānau. They related this to diabetes management, meeting biomedical target levels and concordance with medication to prevent complications. The

participants stated that it was important to adopt a holistic approach and working in partnership, as patients will not necessarily do something just because they are told to by a Nurse or Doctor. The impact of the power imbalance inherent between health professionals and patients was also clearly considered by the participants.

Participants discussed the importance of whānau support in self-management of diabetes. Involving whānau to support individuals with diabetes was a key component of clinical practice identified by the RN participants. They also noted that whānau were the primary support for individuals with type II diabetes. Due to the familial nature of the disease working in partnership with the individual and whānau was noted as highly important for both prevention and treatment of type II diabetes.

“You know, to focus on the biomedical. Its a barrier, because it doesn’t mean a lot to people. So they do not have enough understanding, yeah” (MHP1a).

The RN stated how difficult it was to discuss biomedical targets with clients and their whānau. She discussed how it was very important to relate biomedical targets to the lived experience of the clients. She then gave examples of how she would do this. For example, relating high blood glucose levels to frequency of urination, thirst and infections or boils. The RN commented that she had to make links that assisted individuals and their whānau to make sense of these targets. Effective self-management is important for the prevention of complications.

“Your HbA1c is 11 [pause] we need to do something about your diabetes. Just saying that to someone does not mean they will want to do something about it, mmmm” (MHP1a).

This was discussed in relation to meeting biomedical target levels and the importance of involving whānau with self-management. The RN acknowledged the potential impact of the power relationship between health professionals and patients and also noted the importance of relating HbA1c levels to everyday experiences when working with individuals and whānau.

Comments made by RN participants employed by MHP2 also noted significant issues around health literacy and the need to present complex information in a way that made sense to the

individual. The RNs discussed the inventive ways that they presented information in a way that the individual and whānau could relate to. A key aspect in developing understanding and knowledge was whānau involvement. The RNs stated that they did not have a contract to work with whānau who had a diagnosis of type II diabetes. The following quote further highlights these difficulties:

“What we do, is look at the risk for diabetes, then try and get them into the service to do the whole proper [pause] but the contract that the other provider had, had it in it” (MHP2).

The RN participants discussed screening whānau and raising awareness of risk of developing diabetes. Participants stated that health promotion, prevention and early detection of type II diabetes were important aspects of clinical nursing practice to improve health outcomes and reducing complications. They raised a number of issues in relation to not having a contract for type II diabetes.

“Yeah, I don’t know what it is. It’s like denial, I suppose. Like we’ve got a couple here, he’s had kidney transplant, and now the wife’s got quite bad diabetes”. (MHP1).

RNs noted that the insidious nature of complications required individuals and whānau to develop knowledge and understanding to enable effective self-management of their diabetes. They stated that aspect of diabetes management was very difficult to develop as the current system failed to address this aspect of care. They also noted that health literacy and socio economic status were important. The RNs emphasised that culturally appropriate interventions were lacking due to the focus on the individual in contract provision.

“And like beliefs about Māori remedies. Those things are not reported in the system. Yeah, that can be a barrier, and I see that quite a bit, yeah, people don’t like to talk about taking alternative things, but they do, so they don’t want to take their tablets. There’s that art [pause] in spending some time with them, and build a rapport, yeah, and sharing [pause]” (MHP1).

Another notable aspect was discussed in relation to appreciating different attitudes to health. The RN stated that the use of traditional Māori methods of healing was not part of current primary health care delivery and queried whether it should be if the aim is to deliver

culturally appropriate care. The participant noted that this is not recorded or included in reports yet may be significant for concordance with medication regimes. The participant noted that she was able to obtain this information through good relationships.

The quotes have been used to illustrate significant aspects of facilitators and barriers as perceived by RNs employed by three Māori Health Providers in the Wellington region. Common themes and sub-themes have emerged from the interview data analysis. The RNs demonstrated a strong commitment to the community and delivering high quality care within Māori concepts of health and wellness. They adopted innovative ways to achieve these goals.

Conclusion

Policy documents and direct observation contributed to the collection and thematic analysis of data. Due to the sensitive nature that exists within the contract environment and the confidentiality surrounding them, information on the content of specific contracts was not accessed. As previously stated manuscripts were checked a number of times against the taped conversations and field notes prior to being independently categorised to ensure accuracy of data interpretation (Stake, 1995; Patton, 2002). The three main themes and sub-themes identified in Table 3 were amalgamated from each interview onto a composite concept map (Ryan & Bernard, as cited in Denzin & Lincoln (Eds), 2000). Each theme impacted on RN participants' ability to work holistically with whānau as either a facilitator or barrier depending on the context as illustrated by the quotes used previously. Next, a summary of similarities and differences that emerged will be outlined.

Funding, contracts and reporting mechanisms were the most significant of the three categories that emerged from each focus group interview. The RN participants perceived funding and contracts as having the greatest impact on their clinical nursing practice. The analysis of each focus group interview highlighted significant facilitators and barriers in relation to the current funding and contract environment. The impact of contracts on clinical nursing practice was most apparent when comparing MHP1a with data from the other focus group interviews.

Significant facilitators were identified that supported RNs to work holistically with whānau. Contracts that support the ability of the service to be responsive and flexible were identified as highly important, for example providing an outreach service to support GP services; undertaking home visits; free service and CHW support. The CHW role was seen as a key component to improve access for whānau to a range of health services. CHWs assisted whānau to navigate the complex multiple pathways that exist in the current primary health care environment. The complexity of the primary health care environment is directly related to multiple contracts.

Obtaining and maintaining specific contracts within mainstream funding was a major facilitator. The impact of obtaining contracts was a highly effective facilitator when the content of the contract was culturally appropriate as demonstrated by MHP1a. This contract was an excellent example of how funding and contracting can positively impact on RNs ability to work holistically with whānau.

In contrast, funding, contracts and reporting requirements posed significant barriers for RNs working in this environment. Many contracts had a limited scope and were short term in nature with no guarantee of continued funding. Key sub-themes that emerged related to being able to access contracts and the narrow focus of contracts which had an individual/ biomedical focus. Maintaining contracts also proved to be an actual or potential barrier for service planning and provision. RN participants noted that the short term nature of the contracts impacted on their ability to implement change and improving the quality of the service.

Furthermore, contract reporting requirements created a number of barriers that impacted on the time RNs had available to spend undertaking clinical nursing practice. Reports were frequently required, for example quarterly. RNs perceived that many reports required output data that had little bearing on health gains or outcomes. The data in reports failed to capture the essence of how RNs worked with whānau as they had an individual focus. The RNs were concerned that the rich narrative accompanying the output data was largely ignored by the DHB.

Notably, Māori Health Providers identified that they offer services that are unfunded or outside their contract in order to meet the needs of the community. RNs reported that they

worked holistically and in partnership with whānau regardless of the actual contract requirements. RNs displayed innovative, culturally appropriate practice in order to provide services to whānau who have a diagnosis of type II diabetes. This was most apparent when reviewing the interview with MHP2. This provider did not have a contract for RNs to work with whānau who have a diagnosis of type II diabetes.

Activities that are undertaken outside the scope of contracts are not captured by reporting requirements and therefore go unrecognised. In the case of the MHPs who participated in this research, contracts were managed by the Practice Managers which impacted on the role of RN participants. For example, participants were employed to fulfil specific contracts which were individual in nature and created a very narrow scope of practice for the RNs. The PHC context was the second category that emerged from the data and this was closely related to the funding and contracting environment.

Contracts strongly affected the PHC services that RNs were able to provide and impacted significantly on clinical nursing practice. For example, this is clearly demonstrated by the apparent differences illustrated when comparing MHP1a with the other groups. Significant themes also included the fragmented nature of services and multiple providers, which strongly affected access and provision of culturally appropriate care. Some of the RN participants were employed to fulfil specific contracts to provide care to people with asthma, which affected their ability to engage holistically with whānau who had a diagnosis of type II diabetes. RNs noted that individuals and whānau may not understand the individual role of each nurse created by the 'contract for condition' funding.

RNs noted that considerable health literacy is required to understand and navigate the current primary health care environment. The role of the CHW was identified as an important facilitator to improve access and assist individuals to navigate the system. Participants noted that CHWs ability to be responsive was supported by appropriate funding and contracts. Engagement with whānau and the effectiveness of adopting a whānau ora approach was highlighted as an important aspect of PHC. This was closely associated with the sub-theme of developing and maintaining effective relationships. The current fragmentation of services and individual focus of contracts created considerable barriers and this aspect of clinical nursing practice was poorly supported by the PHC environment.

The opportunistic way of whānau engagement was another theme that emerged as a significant barrier. This was linked to two sub-themes. The monocultural nature of contracts posed a significant barrier to working holistically with whānau. Secondly, the way that whānau were engaged was highly opportunistic and not systematic. This is a significant factor given the increased risk of developing type II diabetes for whānau members. The exception here was MHP1a where contracts supported a whānau centred approach to health care delivery within Māori concepts of health.

Effective communication and collaboration within the primary health care sector were recurring themes that threaded through this category and a number of examples of effective intersectoral collaboration were given. However, these were largely due to the efforts of the providers and health care professionals. The PHC funding environment is driven by internal market forces and the need to obtain and maintain contracts. The impact was highlighted by some services being underutilised by other providers and a lack of effective communication between providers.

The effect of being unable to obtain funding to deliver diabetes care was identified as a significant barrier. RNs worked within Māori paradigms of health to find innovative solutions that were effective. Many of these innovative solutions may benefit other providers. They remain unfunded, undocumented and unrecognised because they occur outside the scope of existing contracts. The funding and contract environment is significant and shapes the primary health care landscape.

Finally, the third over-arching category was type II diabetes and the complexities surrounding development, diagnosis, management and prevention of complications. This category was not the main focus of RN participants in this study. The impact of funding, contracts and the current primary health care environment on each of these sub-themes was apparent and strongly influenced clinical nursing practice.

Whānau engagement was clearly identified as a key facilitator in both the primary health care and type II diabetes categories. The familial nature of the disease and the importance of whānau support for effective management and prevention of complications were significant sub-themes that emerged from the data. Whānau engagement is a critical component of

prevention, opportunistic screening and health education. Again the value of CHWs and undertaking innovative activities were recurring themes that facilitate engagement. A considerable amount of these activities occurred outside the scope of the contracts held by the providers participating in the study.

We can see that three over-arching themes emerged from the data and a number of overlapping sub-themes were apparent. Themes and sub-themes were identified as both facilitators and barriers depending on the context. There can be no doubt that the funding and contracting environment had the greatest impact on the current primary health care landscape and the RN participant's ability to work holistically with whānau. The significance of this study will now be discussed in relation to the literature.

Chapter Six

Discussion

“Let whoever is in charge keep this simple question in her head – not how can I always do this right thing myself, but how can I provide for the right thing to be always done.”

(Florence Nightingale Foundation, nd).

Introduction

In this chapter the results are synthesised in relation to the aims of the study and the literature review. The literature review showed that most research relating to the role of RNs in the PHC sector was descriptive in nature. Very little research related to RNs’ clinical nursing practice within indigenous paradigms of health or health services. A small amount of qualitative research explored RNs’ perception of factors influencing their clinical nursing practice. They were undertaken in secondary care facilities and almost all occurred in acute settings, for example, Intensive Care Units (ICU).

The aims of this thesis were to identify elements of the current PHC system that facilitate or create barriers for RNs who are employed by Māori Health Providers and who work with people who have a diagnosis of type II diabetes. Analysis of the study data identified three over-arching categories; funding and contracts; primary health care context and type II diabetes. Sub-themes overlapped within each category and themes were identified as both a barrier and facilitator depending on the context. The strong biomedical focus on quality indicators such as: reaching and maintaining lipid profile; blood pressure level and HbA1c at or below target levels, are essential elements of type II diabetes management. The success of reaching and maintaining biomedical targets to improve health outcomes is directly related to access to culturally appropriate services.

This discussion chapter positions the results of this study in relation to existing research, current literature and limitations. How representative the research results are of RNs working in this environment will also be explored. The notion of evolution again threads through each

aspect of the discussion chapter. Relevance of the results for Māori and MHPs will be reviewed. Finally, recommendations and potential solutions that facilitate change will be made and areas requiring further research will be highlighted.

Funding and Contracts

Introduction

An over-arching theme that emerged from the literature review highlighted the importance of funding and planning in relation to effective health care systems. The effects of globalisation, the ageing population and the impact of non-communicable diseases are apparent in health care and there are concerns that future demands will exceed service capacity (Wilkin, 2002; WHO, 2008b). These pressures are primary drivers for health reform and changes in Government policy (Wilkin, 2002; WHO, 2008b).

Internationally government policies informed by the WHO have seen re-orientation of health services toward primary health care (WHO, 2008a; WHO, 2010a). This is reflected in the re-orientation of services in Aotearoa/New Zealand over the last 20 years and has had a strong influence on clinical nursing practice (MOH, 2000a). Re-orientation of services has offered the opportunity for RNs to extend their scope of practice particularly in the management of long-term conditions both internationally and in Aotearoa/New Zealand (MOH, 2002b; RCN, 2003; MOH, 2005; MOH, 2005a; NCNZ, 2010).

Since implementation of the Primary Health Care Strategy in 2001, the aim of improving health and reducing health inequalities have seen changes in Government policy (MOH, 2001). The development of PHOs and reduction of fees for primary health care services through Government subsidies have been implemented (MOH, 2001; Crampton, et al, 2004; Cummings & Gribben, 2007). He Korowai Oranga/Māori Health Strategy has addressed the concept of whānau ora and provided a framework to support clinical nursing practice and Māori Health Provider services (MOH, 2002f).

However, evaluation of the PHC strategy has demonstrated significant implementation issues for organisations providing services within the sector (Gauld & Mays, 2006; Finlayson,

Sheridan, Cummings, 2009). Funding and contracting structures were identified as a barrier for service providers and this is very significant for Māori providers as these services exist within a mainstream framework of health funding (Sanson-Fisher, et al, 2006; Timu-Parata, 2006; Finlayson, et al, 2009). This study adds depth to current knowledge by exploring how funding and contractual structures influence the clinical practice of RNs working for Māori Health Providers. It is clear from the results of the study that the funding and contracting environment had the greatest influence on the clinical practice of RN participants. This will be discussed in more detail.

Health equity is a core global development goal that has a strong focus on primary health care (WHO, 2008a). Equity has particular significance for Māori Health Providers in relation to the disparities in health between Māori and non-Māori (Ellison-Loschman & Pearce, 2006). The concept of equity relates to access, self-determination, empowerment, partnership and collaboration (McMurray, 1999; Sloan & Groves, 2005). Over the last twenty years progress has been made by changes in Government policy and development of Māori Health Providers. Even so, significant health inequities are apparent and this is notable when looking at incidence and complications of type II diabetes (Wright, et al, 1996; Ellison-Loschman & Pearce, 2006; MOH & University of Otago, 2006; Durie, et al, 2010).

Furthermore, equity is a concept that can be applied to the current funding and contract environment. The current contracting environment is underpinned by a strong biomedical framework of funding and delivery (Toth, et al, 2005; Sanson-Fisher, et al, 2006; Timu-Parata, 2006). This is not in alignment with Government strategic direction (MOH, 2001). The funding and contracting environment creates barriers within the complexities of modern society. The current funding structures fail to acknowledge or address socio economic, cultural, educational and environmental influences that affect human biology and disease prevalence (Braun, 2002; Whittle, 2010). The current structure perpetuates social inequity and racial discrimination (Braun, 2002; MOH & University of Otago, 2006; Whittle, 2010).

The concept of racism can be utilised as a framework to understand how health inequity is perpetuated by social, political and economic factors that are frequently embedded in institutions including health services (HRC, 2002; Griffith, Johnson, Ellis, Schulz, 2010). Institutional racism exists within the policy, procedure and the operation of an institution. Institutional racism reinforces prejudices and practices that disadvantage groups within

society and this study draws attention to some of the effects of this process within the current PHC environment (Jones, 2001; Griffith, et al, 2010).

Institutional racism is a covert issue that permeates throughout the complex system of PHC in Aotearoa/New Zealand. The study brings to light the way that institutional racism can result in poor use of resources and inappropriate service provision that affects access and results in health inequity. Many of these issues had a negative impact on the clinical practice of RN participants in this study. Further issues that highlight the effects of institutional racism were related to the narrow biomedical and individual focus of contracts that failed to acknowledge Māori concepts of health or a whānau centred approach (Janssen et al, 2009; Durie, et al, 2010).

Māori Health Provider services exist within a framework of mainstream funding and this has the potential to have adverse effects on service provision depending on the nature of the contract held by the provider (Sanson-Fisher, et al, 2006; Robson & Harris, (Eds), 2007). The funding and contracting environment contributes to the continuation of health inequity including access to appropriate services (MOH & University of Otago, 2006). Although the Māori Provider Development Scheme (MPDS) supports Māori Health Providers to establish effective services, evidence demonstrates differential access to health care between Māori and non-Māori which affect health gains and outcomes (MOH, 2004b; CBG, 2009). This was clearly demonstrated by the experience of RN participants who highlighted significant issues related to the current funding and contracting environment. For example, MHP2 does not hold any contracts for RN employees to work with individuals/whānau who have type II diabetes.

The limited scope of contracts also limited the scope of practice of RN participants. RN participants' practice was strongly influenced by the need to maintain and fulfil the requirements of the specific contract that they were employed to fulfill, such as, Tamariki Ora or Outreach Immunisation Service contracts, rather than working holistically with individuals and whānau. Overall the RNs' ability to work holistically with individuals and whānau who have a diagnosis of type II diabetes was affected by funding and contractual requirements. The need to establish and maintain funding was frequently dependent on output data and there was an obvious strain between fulfilling contract requirements and working holistically within Māori paradigms of health.

RN participants found that their clinical practice was dominated by the nature of each individual contract. For example, obtaining and maintaining contracts that enabled RNs to provide services to individuals and whānau with type II diabetes had a major impact on participants' clinical practice. Research demonstrates the value of facilitating advanced practice of RNs who work in primary healthcare (Horrocks, et al, 2002; Laurent, et al, 2004; Litchfield, 2004; NZNO, 2004; NZNO, 2005; MOH, 2005a; MOH, 2005b; Torrisi & Hansen-Turton, 2005). It was apparent in this study that contracts frequently failed to support advanced clinical nursing practice or RNs' ability to work holistically with individuals who had a diagnosis of type II diabetes (Van Zandt, et al 2008; Naylor & Kurtzman, 2010).

The results of this study highlight the need for contracts, reporting requirements and accountability to reflect Government strategic direction and facilitate culturally appropriate service provision to improve health outcomes by addressing some of the issues affecting health equity. Recommendations made by the Whānau Ora Taskforce support the results of this study. The Whānau Ora Taskforce recommended that reporting requirements must include indicators that measure outcomes that assess the effectiveness of service provision (Durie, et al, 2010). Participants in the current study stated that reporting mechanisms were resource intensive and output data did not accurately reflect whānau engagement which is an important component of culturally appropriate care.

The participants identified further barriers that were related to the contract environment. As previously discussed MHP2 was unable to access funding for RNs to provide care for whānau with type II diabetes. This was due to the historical capture of contracts by another provider in the area such that this had a significant impact on the service that those RNs could provide. This highlights the competitive nature of PHC in Aotearoa/New Zealand and the barriers that prevent collaboration, perpetuating the fragmentation of service provision.

Biomedical Focus and Culturally Appropriate Care

The dominant biomedical focus of healthcare delivery is ineffective in prevention and treatment of type II diabetes for indigenous populations (Sanson-Fisher, et al, 2006; Robson & Harris, 2007). Health service provision for indigenous populations are effective when they are developed in partnership and integrate traditional models of health and wellness with

biomedical indicators and the experience of MHP1a clearly reflects these findings (Toth, et al, 2005; Barton, 2008; Durie, et al, 2010). The research results show that contracts were effective when they facilitated responsive engagement with whānau and promoted culturally appropriate care as illustrated by MHP1a. Culturally appropriate care that is developed and delivered in partnership with the community is successful in improving access and health outcomes (O’Conner, 2003; O’Conner, 2005; Barton, 2008).

In addition, it is also important to consider that the health services in Aotearoa/New Zealand exist within a dominant western culture (Sanson-Fisher, et al, 2006). As previously discussed, institutional racism creates barriers to equal access to services, for example, health, education and employment opportunities which affect socio economic status and health outcomes (Jones, 2001; Henry, Houston, Mooney, 2004; Robson & Harris (Eds), 2007). This is evident from the statistical data available in Aotearoa/New Zealand (Robson & Harris (Eds), 2007). Institutional racism is rooted in the history of Aotearoa/New Zealand and dominant western values have been built into the operations of social institutions including education and health care and the act of discrimination is frequently covert, unconscious and unintentional and therefore difficult to address (Henry, Houston, Mooney, 2004; Jones, 2001).

The current funding and contract environment displays the features of institutional racism albeit unintentionally (Henry, Houston, Mooney, 2004; Jones, 2001). For example, the limited scope of contracts and the individual/biomedical focus mean that MHPs have to manage numerous contracts for specific conditions. The funding for each separate contract must be accounted for by reporting requirements and affects the ability of the service to be responsive and work holistically with the community. This then impacts on the clinical practice of RNs working in this environment and is a significant barrier to improving the health of Māori.

The prevalence of type II diabetes is a significant health issue for Māori (NSGG, 2003; MOH, 2006; Robson & Harris (Eds), 2007). There is no rationale that can justify the prevention of a MHP from accessing funding for RNs to work with individuals and whānau who have a diagnosis of type II diabetes. This does not reflect the principles of Te Tiriti o Waitangi/Treaty of Waitangi or Government policy in relation to strategic frameworks that guide health care delivery (MOH, 2000; MOH, 2000a; MOH, 2000c; MOH, 2001; MOH, 2002b; MOH, 2002c; MOH, 2002e; MOH, 2002f; MOH, 2003b; Robson & Harris (Eds),

2007; MOH, 2010b). These findings highlight the effects of institutional racism within the current PHC environment and the issues facing RNs who work within this system. Notably, RN participants reported they were able to uphold the principles of Te Tiriti o Waitangi/Treaty of Waitangi by initiating innovative culturally appropriate practice.

Further improvement of access in a culturally appropriate manner is essential to address health inequities. Improving access to culturally appropriate services is critical to improve health outcomes in relation to type II diabetes, which demonstrates significant disparities in both prevalence and incidence of complications for Māori (WHO, 2008a; Janssen, et al, 2009). Māori concepts of health and wellbeing encompass a holistic approach and these concepts are crucial elements to deliver effective health care. Te Whare Tapa Whā is an example of a Māori model of health that provides a framework for RNs to work within Māori paradigms of health and supported the practice of RN participants (MOH, 2001; MOH, 2002d; MOH, 2003a).

Furthermore, the need for culturally appropriate health services is important when looking at wider issues affecting access, for example, socio economic status which may impact on an individual's ability to attend health services for prevention and treatment (Howden-Chapman & Tobias (Eds), 2000; Robson & Harris, 2007). MHP1a and MHP3 stated that contracts which enabled 'no-fee for services' improved accessibility, flexibility and responsiveness of the service to the needs of the local community (Janssen, et al, 2009; Shah, 2009). Literature demonstrates that no-cost consultation and improved access contribute to whānau engagement with services (Durie, 2003a; Durie, 2004; Janssen, 2008; Timothy, et al, 2010).

Additionally, health is strongly influenced by an individual's socio economic status and the environment that they live in (WHO, 2007a; WHO, 2010). Māori represent a large proportion of low income earners, which is associated with poor housing and health outcomes. Therefore subsidised or free health services may improve access, but this is not the only consideration (Howden-Chapman & Carrol, 2004; Perry, 2005). Health literacy is directly linked to socio economic status and general literacy levels. This is an important component of delivering culturally appropriate and effective care and informed the RN participants' clinical practice (Durie, 2003; MOE, 2007; MOSD, 2007; Nutbeam, 2008; MOH, 2010).

Impact of Funding and Contracts

RNs are central to Government strategic policy and health reforms and evidence clearly shows the effectiveness of nurse-led initiatives in PHC both internationally and nationally (MOH, 2001; MOH, 2002b; MOH, 2003b). Initiatives identified in the literature demonstrated that RNs are cost effective and improve access to healthcare (Lang, et al, 1996; Horrocks, et al, 2002; Laurant, et al, 2004). Currently the contracting environment provides significant barriers for RNs to reach their potential and meet the needs of the community.

For example, the prevalence of type II diabetes is twice as high for Māori than non-Māori, complications are disproportionately high and access to the 'Get checked' annual diabetic review programme is poor (NZGG, 2003; MOH, 2006b; MOH & University of Otago, 2006; Gentiles et al, 2007). This highlights the importance of supporting RNs who are employed by MHPs to work holistically with individuals and whānau to improve outcomes. Key features of successful initiatives that support RNs to work holistically and in partnership with communities have been identified from the literature and illustrate the barriers created by the current contracting environment.

Features that are effective in supporting RNs to reach their potential in delivering effective care and improving access include: community collaboration and consultation; development of equitable relationships; holistic consumer centred approach; removal of unwarranted restrictions on practice; free or low cost; appropriate funding; comprehensive service and culturally sensitive care (Clendon & Krothe, 2004; Horrocks et al, 2004; Krothe, et al, 2004; Gaines, et al, 2005; Torrisi & Hansen-Turton, 2005; McNeal, 2008). Although these features were noted as facilitators by some participants, this was inconsistent and demonstrates the impact that individual contracts have on clinical nursing practice. Again the impact of individual contracts demonstrates the effects of institutional racism within the healthcare system in Aotearoa/New Zealand.

Furthermore, removal of unwarranted restrictions created by the 'contract for condition' funding and reporting mechanisms would benefit RNs ability to provide comprehensive, holistic, culturally appropriate care. Successful initiatives both internationally and in Aotearoa/New Zealand were identified from the literature. Consistent features of these

initiatives were free or low cost services and community collaboration/consultation. In Aotearoa/ New Zealand these initiatives were facilitated by the unique governance structure of the MHPs and some of the contracts held by them that provided adequate resources and appropriate reporting mechanisms (Te Puni Kōkiri, 2000).

However, as previously discussed current funding arrangements require MHPs to compete for contracts. Participants identified that the need to obtain and maintain contracts created competition between providers that affected their ability to develop collaborative relationships (Finlayson, et al, 2009; Black, 2010; Durie, et al, 2010). Competitiveness contributes to protectionism creating an internal market that is detrimental to the development of collaborative relationships and may contribute to poor health outcomes for service recipients (Ashton & Press, 1997; Crampton & Kerse, 2004; Black, 2010). The competitive nature of funding of providers relates directly to institutional racism and the failure of the Crown to uphold its obligations in relation Te Tiriti o Waitangi/The Treaty of Waitangi.

Furthermore, the commercially driven internal market that existed in Aotearoa/New Zealand in the 1900s may continue to influence the small business model of service delivery that currently exists (Ashton & Press, 1997; MOH, 2000; Crampton & Kerse, 2004a). Developing collaborative relationships and adopting a community focused approach in nursing practice is aligned to Government strategic approaches to reduce disparity (MOH, 2000; MOH, 2001; Wilkin, 2002; Litchfield, 2004; Crampton & Kerse, 2004a; MOH, 2005a; MOH, 2005b). RN participants clearly demonstrated the effectiveness of these strategies when the system is supportive of clinical nursing practice.

Additional sub-themes emerged in relation to the contract environment. RNs worked with whānau who had a diagnosis of type II diabetes outside the scope of the contract. These contracts limit the RNs' ability to develop and extend their scope of practice in partnership with the needs of the community. Literature clearly demonstrated the importance of providing services that are culturally appropriate and aligned with the needs and aspirations of the community. Furthermore literature demonstrated that facilitation of responsive, culturally appropriate clinical nursing practice was a feature of successful service provision (Janssen, 2008; Janssen, et al, 2009; Timothy, et al, 2010).

In contrast, MHP1a was well supported through contracts that reflect Government policy and nursing philosophy in relation to Te Tiriti o Waitangi/Treaty of Waitangi (MOH, 2000; MOH, 2000a; MOH, 2000c; MOH, 2001; MOH, 2002b; MOH, 2002c; MOH, 2002e; MOH, 2002f; MOH, 2003b; Wipa (Ed), 2005; MOH, 2010b). This enabled the RN to develop her role to meet the needs of the community and to work holistically with whānau. Literature identified that the experience of MHP1a shared common features with other successful initiatives that acknowledge tikanga Māori values and models of health (O' Conner, 2005; Janssen, et al 2009; Timothy, et al, 2010). These differences between participant's experiences demonstrate significant inconsistencies in the nature of contracts which have failed to evolve to meet the changing PHC landscape.

Evolution is a process of change and this notion threads through the research. In the last twenty years there have been significant changes in Government health policy; re-orientation of health services and Māori Health Provider Development to improve access, cost, cultural acceptability and improve health outcomes (MOH, 2000a; MOH, 2001; MOH, 2002f; Crampton, et al, 2004; Wipa (Ed), 2005; MFAT, 2009). It would appear from the issues identified from this research that funding, contract and reporting mechanisms have not evolved in line with the changes that have occurred over the last twenty years.

The structure of the current contract environment in the PHC sector is not the focus of this research and therefore a detailed literature search and review has not been undertaken. However, inconsistencies exist at Government level as policy and funding structures appear to be mismatched which adversely affects health service delivery within the primary health care sector. Recommendations have been made to Government agencies, for example, by the Whānau Ora Taskforce to ensure that services are appropriately funded and reporting requirements measure outcomes that capture Māori values and processes when evaluating Māori services (Cram, et al, 2003; Durie, 2003; Janssen, 2008; Janssen, et al, 2009; Durie, et al, 2010; Timothy, et al, 2010).

Additionally, this study has highlighted the effects of the current funding and contracting environment as perceived by RNs who are employed by MHP. The negative impact on RNs' clinical practice was apparent. The impact of multiple contracts and the limited scope of contracts in relation to RNs who are employed by other services have not been explored here. Exploration of RNs experience within the wider PHC environment may be highly significant

and worthy of research to develop understanding in order to improve services and health outcomes.

Without doubt, the funding and contracting environment was closely related to the second overarching category, primary health care that emerged from the data. Contracts strongly affected the primary health care services that RNs were able to provide and impacted significantly on clinical nursing practice. Again facilitators and barriers were identified that were dependent on the context. This is clearly demonstrated by the apparent differences illustrated when comparing MHP1a with the other groups.

Significant themes included the fragmented nature of services and multiple providers which strongly affected access and provision of culturally appropriate whānau centred care. Contracts created fragmentation of services and multiple specialised roles. For example, some of the RNs were employed to fulfil contracts to provide care to people with asthma which affected their ability to engage holistically with whānau who had a diagnosis of type II diabetes. RNs noted that patients/clients may not understand the individual role of each RN. Participants' comments about fragmentation of PHC services and their role and scope of practice raised a number of interesting points.

Disparity in Pay and Conditions for RNs who are employed by MHPs

Primarily, RNs who work for Māori providers experienced disparity in terms of pay and conditions. There are differences in annual leave, long service, sick and domestic leave. There are significant differences in career progression payments which recognise experience and professional development. Notably, RN participants in this study were supported to access postgraduate study days and courses and demonstrated commitment to education. There is also a lack of structured career pathways and educational opportunities linked to the contract environment in the primary health care sector. In 2004, RNs employed by DHBs received pay increases of over 20% to close the gap between RNs and other professions, for example, teachers and police. RNs working for DHBs could receive up to \$160 per week more than RNs working in PHC (NZNO, 2007; NZNO, 2010).

In 2007, RN working in the PHC sector received pay increases that are more in-line with DHB employees. However this did not include RNs employed by MHPs as additional Government funding was needed. This is illustrated by a comparison made in June 2007 that demonstrated significant differences: RNs employed by MPHs salary scale range was \$16.02-\$22.73; as opposed to RNs employed by a DHB who earn \$26.66 (NZNO, 2007; NZNO, 2010). Currently RNs working for MHPs earn up to 25 percent less than DHB counterparts and although an active campaign has been underway since 2007, no settlement has been made. There is now a growing problem with recruitment and retention of experienced nurses and employers have linked this to the salary scale provisions in contracts (NZNO, 2007; NZNO, 2010).

Additionally, DHBs in Aotearoa/New Zealand have comprehensive training opportunities, progression and promotion pathways and salaries are commensurate with qualifications and experience. Internationally RNs working in PHC in the UK and USA are able to follow career pathways and extend their role and scope of practice to nurse practitioner status inclusive of prescribing rights (Barclay, 2005; Torrissi, Hanson-Turton, 2005; Davis & Denman, 2008; Courtenay, et al, 2010). Lack of pay parity and a systematic career pathway is a barrier for RNs to reach their potential. The long term effects of inequalities in pay, conditions and career opportunities affect recruitment and retention of RNs and directly influence the success of implementation of Government strategies such as the Primary Health Care Strategy (MOH, 2001; NZNO, 2007).

Furthermore, rapid turnover of staff or the inability to recruit staff is a significant issue for the health of the community and also puts existing contracts at risk if the requirements are unable to be met due to staffing issues. Adequate and appropriate funding is essential for Māori Providers to enable equality in pay for their nursing workforce (NZNO, 2007). Adequate and appropriate funding is also essential also for Māori Providers to compete with other employers and attract RNs to their service (NZNO, 2007). Again I would suggest that this reflects the effects of colonisation and institutional racism (Henry, Houston, Mooney, 2004; Jones, 2001; Sanson-Fisher, 2006; Robson & Harris (Eds), 2007).

Primary Health Care

Sector Collaboration

The second category influencing RNs' ability to work holistically with individuals and whānau was the context of the PHC environment. Collaborative relationships were identified as facilitators that were seen to improve access and health outcomes. Internationally, primary health care philosophy promotes interdisciplinary and intersectoral collaboration to support optimal health outcomes and there are many successful examples demonstrating this (Krothe, et al, 2000; Clendon & Krothe, 2004; State Government of Australia, 2005; Day & Arcus, 2006).

Participants in this study gave examples of how effective collaborative relationships supported their clinical practice and improved access. This is reflected in international and national research (Krothe et al, 2000; MOH 2005; Torrisi, Hansen-Turton, 2005). MHP3 discussed how collaboration with the local community pharmacist provided a whānau centred education session and the opportunity for whānau to openly discuss problems that they experienced. This enabled whānau to support each other and this is a key component of effective self-management that supports improved health outcomes (Handley, et al, 2010).

Further examples of collaborative relationships were discussed. For example, a successful collaborative endeavour led to a local GP and practice nurse service being available on-site to improve access for the community. This demonstrates how effective collaborative relationships are for supporting a whānau centred approach that achieves improved access for Māori (Baxter, 2002; Durie, et al, 2010). Successful initiatives internationally and in Aotearoa/New Zealand reflect the experience of the RNs and this is highly significant if current disparities in incidence of diabetes and associated complications are to be addressed (Krothe, et al, 2004; Torrisi & Hansen-Turton, 2005; Coppel, et al, 2009).

Additionally, the MOH has identified characteristics of successful collaborative initiatives in Aotearoa/New Zealand. These initiatives targeted people within a defined geographic location with the aim of improving health status and reducing health inequalities. The MOH also identified that successful initiatives were appropriately funded and implemented across

sectors and providers with formal arrangements in place (MOH, 2005). The current contract driven environment has a strong influence on the development and success of collaborative relationships and initiatives in primary health care. This is dependent on the specific nature of the contracts and participants identified barriers that impacted on their ability to develop collaborative relationships with other providers.

As an illustration, participants noted that a service to improve access and assist whānau to navigate the complexities of the healthcare system was successfully utilised by them. The CHW was also proactive and ensured that all providers in the area were aware of the service and how to access this. This service was underused or remained unused by other providers. It was unclear from the data why the service was not utilised by other providers in the area. The internal market and protectionism created by the current contract environment are likely factors contributing to under utilisation of this service that had the aim of improving access to healthcare (Crampton & Kerse, 2004; Black, 2010).

Access and Whanau Engagement

Access is a key aspect of improving health outcomes as there is unequal access to diabetes care and services for Māori who also experience higher rates of complications (Baxter, 2002). Initiatives that support Māori to navigate the healthcare system have the potential to improve self-management and prevent development of complications (MOH, 2006b). The study findings reflect the complexities that exist in the primary health care landscape. These act as facilitators or barriers for RNs' clinical nursing practice in relation to improving access. Again inequities are apparent and relate to institutional racism and a funding structure that is not aligned to Government strategic direction (Jones, 2001; Griffith, et al, 2010).

Another sub-theme identified was the importance of community and whānau engagement in prevention and treatment of type II diabetes (Janssen, et al, 2009; Handley, et al, 2010; Timothy, et al, 2010). A number of successful initiatives were identified internationally and in Aotearoa/ New Zealand that shared common features. Successful initiatives have culturally appropriate and responsive service development that occurs in partnership with whānau and community and this is underpinned by appropriate funding (Krothe, et al, 2000; Clendon & Krothe, 2004; Bullen, 2006).

Again, the current contract driven environment had a strong influence on the RNs' clinical practice in relation to whānau engagement as either a facilitator or barrier depending on the nature of the contract held by the MHP. For example, MHP1a was able to provide a service for individuals and whānau who had a history of type II diabetes that was flexible and responsive. The RN was able to engage whānau within Māori paradigms of health and wellness by incorporating tikanga Māori values and utilising Te Whare Tapa Wha as a framework (Durie, 2003a; Durie, 2004; Rochford, 2004). This was appropriately funded by the contract provisions.

However, participants noted that issues within primary health care adversely affect health outcomes for Māori when services focus on narrow biomedical indicators and the individual, rather than taking a holistic and whānau approach (MOH, 2002b; MOH, 2003b; Sloan & Groves, 2005). The Care Plus initiative addressed some of the issues highlighted for example, affordability, time and working in partnership towards identified goals. However the participants stated that the Care Plus initiative was not delivered in a culturally sensitive manner and did not support the RN to be inclusive of whānau which is a key aspect of care toward improved health outcomes (Handley, et al, 2010). Barriers such as physical resources, including room space impact on RNs' ability to work effectively (Finlayson et al, 2009).

Significant barriers were experienced by all RN participants with the exception of the RN employed by MHP1a. Common themes emerged which highlighted the monocultural, individual and biomedical focus of contracts and the opportunistic nature of whānau engagement. Without exception, RNs reported that they overcame barriers by innovative culturally appropriate practice, outside the scope of the contracts held by the provider. Given the familial nature of type II diabetes and the role of whānau support to assist individuals to effectively self-manage, engagement is an essential component of holistic care.

The significant barriers experienced by RN participants also raise a number of questions for Government funding and planning departments. These are specifically related to the current structure of funding in PHC. They draw attention to the need for a full review of current funding and planning structures. Review of the PHC system must aim to develop an appropriate model that reflects Government strategic direction, the re-orientation of healthcare toward PHC and Crown obligations in relation to Te Tiriti o Waitangi/Treaty of Waitangi (MOH, 2000a; MOH, 2001; WHO, 2008a; WHO, 2010a). A review of the current

system must acknowledge the covert effects of colonisation and institutional racism within existing policy, funding and service delivery. The process must be transparent and inclusive of overt policy and accountability designed to address institutional racism.

In contrast, an additional facilitator emerged from the data in relation to whānau engagement. The role of the CHW was identified as a facilitator that supported RNs to work with individuals and whānau who have type II diabetes. CHWs have been utilised in successful health initiatives internationally to reach vulnerable populations with type II diabetes. Cherrington and colleagues (2008) identified common features shared by successful CHW initiatives. CHWs worked within their own community and were ideally placed to deliver support and education within their community. CHWs working in successful initiatives undertook five identified key roles. These are, role model, educator, advocate, case manager and programme facilitator (Cherrington, et al, 2008).

Additionally, evidence demonstrates the benefit of CHW in indigenous health initiatives. For example, an initiative in the USA recognised that First Nations have traditional beliefs and medicines and have incorporated a dual approach to prevention and management of type II diabetes to meet the communities' health needs. CHWs provided home visits to support individuals and families. They also undertook routine monitoring tasks for example blood glucose and blood pressure monitoring. The service is still a pilot scheme currently being evaluated. If successful, this approach will be implemented across a range of Health Care Providers in the region (Stokell, 2010).

Further research demonstrated that CHWs enhanced diabetes education and management in an indigenous population. CHWs had a positive impact on diabetes management defined by improved HbA1c. The CHWs provided innovative, culturally-specific interventions to assist individuals with type II diabetes to develop self-management skills. CHWs spent time building relationships with the individual and family members. This reflected cultural traditions and beliefs and provided time for individuals and family members to develop knowledge and skills to manage type II diabetes. The positive outcome was measurable by significant improvement in HbA1c (Beckham, Bradley, Washburn, Taumua, 2008). Handley, et al (2010) demonstrated the importance of family support to assist individuals with type II diabetes to improve their ability to manage their diabetes.

In the Aotearoa/New Zealand context, Ngāti Porou Hauora is a Māori Health Provider that was established in 1994 to ensure provision of appropriate integrated health services for the Ngāti Porou community. Ngāti Porou Hauora is now a well established PHO that offers a holistic health service with an emphasis on improving whānau and hapu health and preventing disease. Seventy-six percent of enrolled patients are Māori. Many employees have strong whānau links to the communities they serve. Ngāti and Healthy is a wellness programme that promotes healthy lifestyle choices for the Ngāti Porou community (MOSD, 2005; Coppel, et al, 2009).

The programme commenced in 2004 as a diabetes prevention research programme and is inclusive of clinical audit and evaluation. This informs the programme and facilitates evolution of the programme to meet the needs of the community (MOSD, 2005; Coppel, et al, 2009). Diabetes and cardiovascular disease are a significant health burden in Māori communities and will continue to increase unless effective prevention programmes like this are implemented (Coppel, et al, 2009). The programme is an excellent example of the effectiveness of collaborative relationships and CHWs are an integral component of the programme (MOSD, 2005).

These examples show that intersectoral collaboration and culturally appropriate services that embrace a whole community approach are effective and reflect Government policy in relation to re-orientation of health services toward primary health care. The role, scope of practice and training of the CHWs has not always been clearly identified in the research and not all of the initiatives involving CHWs have been evaluated. It would have been useful for these aspects of the CHW role to be included as part of the studies (Beckham, et al, 2008; Cherrington, et al, 2008).

The role of the CHW was not the focus of this study. However, this role raises a number of interesting questions in relation to this research. For example: are CHWs being fully utilised, how are they being supported to provide diabetes services, what training have they undergone and is this appropriate, does the practice manager supervise or delegate, or does the RN and is this appropriate? No doubt, CHWs acted as facilitators that supported the role of RNs who work for Māori providers. Additionally CHWs independently provided support for individuals and whānau with a diagnosis of type II diabetes. There is a lack of clarity around some aspects of the CHW role in Aotearoa/New Zealand which will be discussed further in the recommendations section.

Equally important, RNs themselves acted as facilitators to engage with individuals and whānau with a diagnosis of type II diabetes. The RN participants provided innovative activities and services outside of the scope of the contracts held by the provider. The Nursing Council of New Zealand released the new scope of practice for Registered Nurses in September 2010 that recognises the responsiveness of RNs in a rapidly evolving healthcare landscape (NCNZ, 2010). For example, RN participants continued to problem solve and deliver whānau centred care regardless of the funding and contract environment in PHC demonstrating innovative practice and a commitment to culturally appropriate care.

The Evolving Role of RNs in Primary Health Care

International and national research demonstrates the evolving role of RNs (Mundinger, et al, 2000; Leamey, et al, 2005; Torissi & Hanson-Turton, 2005; Van Zandt, et al, 2008; Finlayson, et al, 2009; Naylor & Kurtzman, 2010). Key features have been identified that re-define the role of RNs' clinical practice. These include using evidence to facilitate improved health status, maintenance of wellness and support for living well with long term conditions (RCN, 2003; NZNC, 2010). International evidence demonstrated the effectiveness of developing the RN expert generalist role to deliver high quality PHC (Torissi & Hansen-Turton, 2005). This is of note and may be highly significant when looking at the Health Workforce New Zealand (HWNZ) proposal regarding RN prescribing rights for those RNs working in Diabetes Services (MOH, 2010a; Wilkinson, 2010).

The findings from this study reflect the literature which demonstrated that RNs who work for Māori Health Providers improve access and health outcomes for their enrolled populations (Litchfield, 2004; NZNO, 2004; MOH, 2005a; MOH, 2005b; NZNO, 2005). Their practice incorporates collaborative community focused care underpinned by the principles of Te Tiriti o Waitangi/Treaty of Waitangi (Wipa (Ed), 2005; NZNC, 2009). This is aligned with Government policy and strategic approaches (MOH, 2000; MOH, 2001; MOH, 2002f). RNs working in primary health care are cost effective and promote high levels of patient satisfaction that lead to improved health outcomes (Kinnersley, et al, 2000; Mindinger, et al, 2000; Horrocks, et al, 2002; Torissi & Hansen-Turton, 2005; Staines, 2006). RN participants reported that they provided culturally appropriate holistic care by using a whānau centred approach regardless of funding and contractual requirements (Durie, et al; 2010).

Additionally, Finlayson, et al (2010) illustrated that there are considerable barriers within the current PHC environment that affect RNs' clinical practice. As previously discussed complex factors contribute to RNs' ability to provide culturally appropriate care and again the current 'contract for condition' is a strong influence. There is an inconsistency in contractual arrangements that either facilitate or create barriers for RNs working in this environment. This creates further health inequity as providers who have contracts that encompass a whānau centred approach enhance clinical practice. RNs who are employed to fulfil 'contract for condition' requirements have to overcome significant barriers in order to provide whānau centred care for those who have type II diabetes.

The ability to work in partnership with individuals and communities to improve health outcomes is a core skill for RNs in primary health care. Māori Providers assist by offering students nurses the opportunity of experiencing and developing these core skills underpinned by the principles of Te Tiriti o Waitangi/Treaty of Waitangi (MOH, 2003; Siegest, 2004; Lindsey & Kleiner, 2005; Sloan & Groves, 2005; Ervin, et al 2006). RNs act as role models by utilising Māori health models and working in partnership with whānau and this assists students to develop culturally appropriate and safe practice (Wipa (Ed), 2005; Simon, 2006; NZNC, 2009). RN participants' role modelled these principles by innovative clinical nursing practice underpinned by Māori concepts of health and wellness. Students who have clinical experience with Māori Health Provider Services are provided with optimal conditions for learning and may be encouraged to seek employment with these services.

RN participants discussed the increasing numbers of Māori and Pacific students who were placed with them for clinical experience reflecting the positive impact of Government policy (Gaines, et al, 2005; HCA, 2006; MOH, 2006c). Clinical opportunities that accurately reflect the healthcare landscape prepare students by developing appropriate clinical skills (Ervin, et al, 2006). Participants noted the importance of students having clinical experience with Māori Health Providers. They stated that this could facilitate recruitment and service provision in the future.

In 2006, The Māori Health Workforce Development Plan /Raranga Tupuake aimed to develop a competent, skilled Māori health and disability workforce over a 10 to 15 year period and this is reflected in the increasing number of Māori student nurses (MOH, 2006c). One of the goals of Raranga Tupuake is to enable equitable access for Māori to training

opportunities which is important as statistics demonstrate that in 2007 only 9% of Māori students leave school with a qualification that would allow University entry (Durie, 2003; MOH, 2006c; MOE, 2007). This aspect of discussion highlighted the way that Government policy can positively impact on both employment opportunities and health inequities.

Additionally, since 1990 the Nursing Council of New Zealand (NCNZ) has incorporated cultural safety into its curriculum assessment processes and clinical nursing practice is underpinned by Te Tiriti o Waitangi/Treaty of Waitangi (NCNZ, 2009). RNs must demonstrate cultural safety in practice competencies to maintain registration (NCNZ, 2009). Again this demonstrates the way that policy can be utilised to improve health inequity. There is potential for research and policy development to further address health inequities and improve health outcomes.

Professional organisations, such as New Zealand Nursing Council and the New Zealand Nurses Organisation, are uniquely placed to address health inequity through translation of research into policy. As previously discussed NZNC successfully incorporated cultural safety into curricula assessment and clinical competencies. Therefore there is potential for NZNC to include health inequity, social justice and knowledge of policy development within Bachelor of Nursing curricula and nursing competencies. In order to address health inequities RNs need to develop a number of skills to successfully address systems within PHC that contribute to poor health outcomes. For example, RN participants noted that funding and contracts had the greatest impact on their clinical practice yet there is no system in place to enable RNs to highlight these issues in order to find a solution.

Furthermore, the issues here are complex and significant aspects need to be addressed to enable RNs to contribute to PHC development on a policy, system and a structural level. Involvement in research that is service orientated and solution focused has the potential to highlight institutional racism and to provide the opportunity for RNs to articulate the way that they work to address health inequities. RN participants discussed innovative interventions that addressed the health of clients and their whānau.

Additionally, these successful interventions were culturally appropriate and many occurred outside the scope of contracts. The interventions were unrecognised and unreported highlighting the need for dialogue and active contribution of RNs at policy level. NCNZ and

NZNO represent the 'voice' of nursing and therefore have the power to advocate for nursing representation and involvement in policy system and funding development within the health care system of Aotearoa/New Zealand. This is significant when looking at the incidence of type II diabetes and associated complications (Gentles, et al, 2007).

Type II Diabetes

Introduction

The third over-arching theme that emerged from the data was directly related to type II diabetes. The impact of type II diabetes continues to be a challenge internationally and in Aotearoa/New Zealand (Bird, 2002; UN, 2006; WHO, 2007; WHO, 2009). Type II diabetes will increase significantly in the next twenty years and the incidence is disproportionately high in Māori (MOH, 2002c; NZGG, 2003; MOH & University of Otago, 2006; Robson & Harris, 2007). There are complex factors involved in the development of type II diabetes and the incidence of complications which have been discussed previously (Martini, 2006; McCance & Huether, 2006; MOH & University of Otago, 2006; Gentles, et al, 2007; Diabetes UK, 2010). This study adds to what is already known by identifying these factors which facilitate or create barriers for RNs who work for Māori Health Providers. The WHO recommends structured planned care for the management of type II diabetes and evidence based guidelines that support clinical nursing practice (WHO, 2002a; NZGG, 2003, NZGG, 2005; SIGN, 2010).

Culturally appropriate solutions are essential to address inequity in the development of type II diabetes and associated complications (Baxter, 2002; Coppell, et al 2009). In order to address health inequity and outcomes for Māori who have type II diabetes, access to culturally appropriate healthcare that incorporates Māori health models and a whānau centred approach are essential (Janssen, 2008; Durie, 2010). Initiatives that adopt a whole community whānau centred approach and are appropriately funded reduce the incidence of type II diabetes and associated complications (Janssen, 2008; Coppell, et al, 2009; Durie, 2010).

A number of sub-themes emerged from the data that acted as a facilitator or barrier depending on the context. This was frequently related to the nature of the contracts. The

ability to be flexible and responsive to the needs of the client, their whānau and the community in order to improve access and to work in partnership was a key facilitator. RNs noted the importance of understanding socio economic factors and the local environment as these factors directly affected access, incidence of type II diabetes and associated complications (WHO, 2007a; WHO, 2010).

Socio economic and environmental factors were also important to consider when undertaking health education. In order to facilitate individuals and whānau to develop understanding of type II diabetes and associated risk factors RNs highlighted the importance of linking this to the local environment and their own circumstances. Health literacy is directly affected by socio economic status and general literacy skills which affect health outcomes (Durie, 2003; MOSD, 2007; Nutbeam, 2008). Education outcomes remain much poorer for Māori which affects access to health information and services and this is strongly associated with health inequities (Nutbeam, 2000; Durie, 2003; Korhonen, 2006; Nutbeam, 2008; MOH, 2010).

RNs Clinical Nursing Practice

The complex information and the biomedical focus of target indicators were challenging aspects of working in partnership with clients and their whānau. RNs discussed the importance of relating biomedical targets to the lived experience of clients. Linking biomedical targets, lifestyle advice, medications and risk of complications that individuals and whānau could relate to were important nursing considerations (Nutbeam, 2000; Nutbeam, 2008). Participants worked holistically to assist individuals and their whānau to develop understanding and to improve self-management of their diabetes (Baxter, 2002; NZGG, 2003). This was supported by CHWs and contracts that embraced a whānau ora approach.

The key sub-themes that participants discussed were poor health literacy, non compliance with medication and the difficulty of making links between complications and the biomedical targets. Literature supports the RNs' experience and has identified the importance of health literacy in relation to timely and appropriate access to health services and improved health outcomes (Nutbeam, 2000; Rootman & Ronson, 2005; Nutbeam, 2008). Further themes centred on where the individual was in terms of understanding and motivation and how to effect change. The RNs related these themes to the way that they worked and discussed the

weekly exercise group and whānau engagement as being effective ways to support the individual.

Conversely, the contents of a significant number of contracts focused on ‘contract for condition’ and the individual rather than whānau. RNs noted that this focus affected their employment contracts as they were employed to fulfil specific contract requirements. Participants also noted that their ability to be responsive, flexible and adopt a whānau ora approach was severely compromised (Leamy, et al, 2005; Gauld & Mays, 2006; Finlayson, et al, 2010). Research demonstrated the effectiveness of nurses in PHC and identified that facilitation of RNs’ clinical practice improves access and health outcomes (Mundinger, et al, 2000; Leamy, et al 2005; Torissi, Hansen-Turton, 2005).

Additionally, participants identified the importance of engaging with whānau as they support individuals to self manage their diabetes. Handley, et al (2010) demonstrated that family support was a key component to improve self-management. Because of the familial nature of type II diabetes whānau engagement was important in order to access family members. RNs utilised these opportunities to undertake screening and health education. It is notable that these activities frequently occurred outside of the scope of existing contracts. Participants stated that the importance of developing whānau relationships was critical to improve, access, understanding and effective management of type II diabetes.

Furthermore, RN participants highlighted that good relationships developed over time and were valuable to facilitate effective communication, nursing assessment and interventions in partnership with clients. Individuals and whānau were more likely to share information and discuss problems that could affect health outcomes, for example non-concordance with medication. Participants stated that good communication and the strength of the relationships with individuals and their whānau were key aspects of their practice.

As previously discussed Māori concepts of healing are holistic and have been described in relation to Māori concepts of health, wellness and health models such as Te Whare Tapa Wha (MOH, 2002d, MOH, 2002f). Due to the narrow focus of this research traditional healing practices for example mirimiri (massage), karakia (spiritual prayer) and rongoa (herbal therapies) were not included (Rolleston, 1989; Salmon, 1991; Williams, 2004). This aspect of Māori health and healing will be discussed in the Recommendations section.

Traditional healing remains largely unrecognised by the current health care system and the use of traditional healing methods is not included in documentation systems, for example, the annual diabetic review. The importance of the relationship that RNs developed allowed this aspect of health and wellness to be explored and this was sometimes associated with non-compliance with medication. In 1999 the Ngā Ringa Whakahaere o Te Iwi Māori (the National Body of Traditional Māori Healers) and MOH collaborated to produce national standards of traditional Māori healing practice (MOH, 1999).

There are a number of questions that these interesting and important aspects of Māori health raise in relation to culturally appropriate care. How are these traditional healing systems supported by Government policy? How many Māori providers offer traditional healing and how is this funded? Further questions relate to the way that traditional healing contributes to improved health outcomes for Māori. What training is available; how is this regulated; who decides this; are the cultural rights of Māori related to traditional healing practices and training protected by legislation? The scope of this research does not include traditional healing practices; therefore this aspect of Māori health will not be explored further here.

The importance of developing equitable relationships was clearly demonstrated by the above example on medications. It is unlikely that individuals and their whānau would be likely to disclose or share information about concordance with medication regimes or the use of traditional healing methods if a trusting equitable relationship had not been developed. Cultural safety in clinical nursing practice provides the pathway that ensures Māori cultural concepts of health are embedded in clinical nursing practice (MOH, 2003; Wipa (ed), 2005; NZNC, 2009).

Equally important, is the concept of eugenics in relation to this study. This concept is frequently used to present health inequities as increased Māori health needs. The ongoing effects of colonisation on culture and socio economic status are largely ignored in relation to health status (Jackson, 2002; Ellison-Loschmann & Pearce, 2006). Te Tiriti o Waitangi/Treaty of Waitangi has been frequently ignored by Government agencies throughout the history of Aotearoa/New Zealand causing the systematic erosion of Māori society that still influences and impacts on health and socio economic status of Māori (MOH, 1998; Gilling, 1999; Orange, 2009).

Additionally, the literature review illustrated the current focus of genetic research in relation to type II diabetes. Genetic research was significant when exploring type II diabetes in indigenous populations (McDermott, 1998; McMichael, 2001; WHO, 2007). Much of the research failed to take into account environmental factors and socio economic status. Further issues identified were related to the clinical value and/or actual benefit of research to the indigenous people being researched (McDermott, 1998; McMichael, 2001; Merriman & Cameron, 2007). Scientific research and the popular press are powerful institutions that have perpetuated eugenic principles by misrepresentation of facts and/or failure to include environmental/socio economic factors, for example the 'warrior gene' (Merriman & Cameron, 2007; Wensley & King. 2008).

A number of issues related to eugenics have the potential to perpetuate discriminatory practices based on race, within the current healthcare system (Whittle, 2010). In order to dispel potential misconceptions that may lead to discriminatory practice the effects of colonisation was explored by utilising statistics that highlight the health and socio economic status of Māori within the current context of modern society.

Significance of Study

Current statistics demonstrate health inequity between Māori and non-Māori and this is notable when looking at the incidence of type II diabetes and associated complications (MOH, 2002a; Pickup, 2004; MOH & University of Otago, 2006; Naqshbandi, et al, 2007; Robson & Harris (Eds), 2007; MOH, 2010c). Evidence demonstrates the effectiveness of RNs within the primary health care context in delivering high quality, affordable holistic care that improves access and health outcomes (Clendon & Krothe, 2004; Leamy, et al, 2005; Torissi & Hansen-Turton, 2005). The role of RNs has evolved to meet the challenges of changes in technology, society, health issues and this is reflected in the re-defining of the role and scope of practice by professional nursing organisations (RCN, 2003; NCNZ, 2010).

Maori Health Provider development has evolved since the early 1990s, supported by Government policy to improve health outcomes for Māori (Timu-Parata, 2006; CBG, 2009). Māori Providers are underpinned by Māori governance and management structures that are further underpinned by cultural beliefs and values (Timu-Parata, 2006; CBG, 2009). The role

of RNs has been explored in relation to primary health care, the development of nurse-led initiatives and the management of long term conditions internationally and nationally.

The role of RNs who work for Māori providers and how the current primary health care structure influences their clinical practice is poorly understood. The aim of this study was to explore RNs' perception of facilitators and barriers that influenced their clinical nursing practice in relation to type II diabetes. The study is significant because clients presenting to Māori providers with a diagnosis of type II diabetes are on the increase. Individuals and whānau require culturally appropriate holistic support and management. The ability of RNs to work in partnership, holistically with clients will improve health outcomes. Due to the prescriptive nature of contracts in the current primary health care environment RNs may be restricted in their ability to deliver their services in a culturally caring holistic manner.

Additionally, the study is significant because it highlights inequity of pay and conditions within the PHC sector which disadvantages MHPs. There is lack of pay parity with equivalent RNs working for other providers. There is no structured career pathway and some RNs may have experienced a lack of support and understanding for their own professional development needs by their employers. These may affect RNs' clinical practice and impact on staff turnover, recruitment and retention which in turn affects health outcomes. The research has uncovered RNs' perceptions of facilitators and barriers. The current contract environment had the most significant influence on RN participants' clinical practice. The research has enabled the surfacing of valid questions in relation to the facilitators and barriers that RN participants identified.

A significant amount of research has demonstrated the importance of appropriate funding and reporting that reflected Māori concepts of health and improved access enabling better health outcomes (Janssen, 2008; Coppel, 2009). The Whānau Ora Taskforce recommended that funding and reporting should be whānau centred and include outcome indicators (Durie, et al, 2010). Māori providers are funded within a dominant western framework of health funding that is contract driven (Sanson-Fisher, et al, 2006; Timu-Parata, 2006). The net effect has resulted in inconsistency in health care delivery that is dependent on the individual contracts. Many of these are 'contract for condition' with a flow on negative effect for providers and RN employees alike.

Māori providers are accountable and must provide output evidence to maintain contracts. This shifts the focus toward maintenance of the contract and away from the community that they serve. RNs are frequently employed to fulfil the requirements of the contract and may not reflect the needs of the community or support them to work within Māori concepts of health. Identifying ‘contracts for conditions’ as a significant barrier for RNs’ clinical practice has the potential to inform future solutions, just as identification of contracts that facilitate RNs ability to work holistically holds potential solutions for Government policy makers.

Furthermore, the study is significant as it highlights the way that the dominant forces in society affect health care delivery and there are a number of issues that demonstrate the impact on clinical nursing practice. Points that illustrate this are that RNs, such as MHP1a, can provide culturally appropriate care that is responsive to the needs of the community when supported by appropriate contracts with a demonstrable effect on her clinical practice. Equally, one cannot underestimate the negative impact of ‘contracts for conditions’ on clinical practice. It was unclear from the literature review whether MOH and DHB policy makers were aware of the issues the current funding and contracting environment creates within Māori Health Provider Services.

Māori Health Providers have the potential to highlight the effect of the current system on RNs’ clinical practice and challenge the current way that they are funded. However, it is unlikely that this in itself will change the current funding and contracting environment. The theoretical approach of critical inquiry has allowed this research to explore and understand the oppressive features of the current funding and contracting environment that fails to support RNs to adopt a holistic whānau ora approach (Tripp, 1992; Freire, 1996; Crotty, 1998; Durie, et al, 2010). The impact of the subtle dominating power relationship that Government Agencies hold over MHPs is evident and contributes to health inequity (Howden-Chapman, Tobias (Eds), 2000; Jones, 2000). MHPs do not have the power to change the current system. The results of this study highlight the way that the contract environment impacts on primary health care services and creates a complex system with multiple providers and fragmentation of services.

Additionally, MOH strategies, for example the Primary Health Care Strategy and He Korowai Oranga which guide service delivery and support RNs to work holistically with whānau cannot be fully effective within the current funding and contract driven environment

(MOH, 2001; MOH, 2002f). The issues are significant and perpetuate health inequity. Institutional racism is apparent and statistics demonstrate oppression, domination and a failure of The Crown to fulfil responsibilities in relation to Te Tiriti o Waitangi/Treaty of Waitangi. The effects of oppression and the impact of the current healthcare system strongly contribute to poor health outcomes for Māori (Jones, 2000).

Finally, this research has revealed the strength of MHPs who work creatively to deliver culturally appropriate care. For example, CHWs are frequently employed to improve access by assisting individuals and whānau to navigate the complex health service environment and support the role of RNs. The research offers the opportunity to increase understanding by highlighting facilitators and barriers from the perspective of RN employees.

Notably, a significant amount of care is unfunded and unrecognised and one must ask why? The research assists us to develop a more critical understanding of the way that the dominant western models of health and funding frameworks impact on Māori. By adding to existing knowledge Māori Health Providers may challenge the current ‘contract for condition’ and advocate for review of this system. Government Agencies must be held accountable for the current contract, funding and reporting requirements that fail to acknowledge Māori paradigms of health or Government strategic direction.

Significance for Māori

Health equity requires the absence of systematic disparities between the different social groups in society (Wipa (Ed), 2005; Robson & Harris, 2007). Evidence demonstrates differences in quality of care received between Māori and non-Māori including diabetes screening and management (MOH & University of Otago, 2006; Gentles, et al, 2007; Robson & Haris, 2007). Devolution of health services and funding to Iwi in the 1990s and He Korowai Oranga provides the pathway for Māori health and wellbeing and addresses the concept of whanau ora that inter-weaves physical, emotional, social, spiritual and ancestral dimensions. However this often occurs within the context of mainstream funding (MOH, 2002f).

Empowerment encompasses the concept of self-determination and knowledge based on Māori understandings and Māori world views. This provides a basis for analysis of health inequities. The findings of the study are significant as they highlight inconsistencies and a lack of responsiveness of the health system toward appropriate funding for MHPs. This has a direct effect on the clinical practice of RNs who are employed by MHPs. Contracts place restrictions on RNs ability to practice holistically with whānau and this has particular significance given the familial nature of type II diabetes.

Health equity must be inclusive of how health resources are distributed and shared (Robson & Harris, 2007). Key to the concept of health equity is the inclusion of fair distribution of resources. The study raises a number of questions in relation to the way MHPs have to compete with each other for contracts. Contracts are inconsistent and service provision is dependent on the nature and focus of the contract. Many contracts that RNs in this study were employed to fulfil are disease specific which creates barriers for whānau centred care.

Accountability is a key factor in health care, but one must ask whether reporting requirements are appropriate. How do reporting mechanisms compare with other Health Care Providers in the primary health care sector? Much of the whānau centred care that participants undertook was unfunded and unrecognised, yet their actions were in-line with Government policy and Te Tiriti o Waitangi/Treaty of Waitangi.

The research highlights the shortfall of ‘contract for condition’ funding and raises further questions of discriminatory practice and institutional racism within the current healthcare system albeit unintentional. Therefore the study is of relevance to Māori as tangata whānua. Identification of facilitators and barriers perceived by RNs in this environment may offer the opportunity to explore more effective delivery of care that is responsive to Māori health beliefs, focuses on the individual and is less driven by maintaining contracts and mainstream funding.

Limitations of the Study

Some of the study's limitations were evident from the beginning prior to submission of the ethics proposal. The specific limitations identified prior to the research commencing are as follows:

- The study was undertaken in an urban location and therefore may not be applicable to RNs who are employed by Māori Health Providers in semi-rural and rural locations.
- The study sample was small and involved three Māori Health Providers and eleven RN participants, which therefore could affect the generalisability of the results.
- The focus of the study was related to type II diabetes and therefore could affect the generalisability of the results in relation to other long term conditions or services.
- Contextual limitations relate to the three Māori Health Providers involved in the study who provide care to their communities and the experience of RNs working with these specific communities. Therefore results may not be generalisable to other Māori communities which may be very different as each community has its own unique identity.

In reply to the limitations identified, the study was concerned with exploring the lived experience of RNs in this environment and the design was qualitative. Case study methodology allowed for in-depth exploration of the RNs' experience at each location and provided the framework to ensure internal validity, external validity, reliability and triangulation of results (Yin, 1994; Stake, 1995). The literature review showed that case study methods had been successfully used previously to explore primary health care delivery (Farmer, West, Whyte, MacLean, 2005).

I was aware prior to commencing the study that my ethnicity, background and life experience may colour my world view and opinions. I engaged in reflective practice to ensure awareness of my interpretation of the knowledge being produced which would be from a predominantly Western European intellectual framework. The pedagogy of critical enquiry was utilised throughout the study. Additionally, I had undertaken considerable consultation in partnership with Māori during the twelve month period prior to commencing the study and this provided valuable insight and respect for the values, knowledge base and practices of Māori. As an RN

and as a member of the MDT, I embraced the concept of partnership in clinical practice and considered this an integral component of the research process.

Further unexpected limitations became apparent as the study progressed. Traditional Māori healing practices within Māori concepts/paradigms of health had not been considered. When defining Māori concepts/paradigms of health I had utilised holistic Māori health models for example Te Whare Tapa Wha and therefore limited the focus of the research. I was very interested when traditional healing practices were discussed and I realised how this limited the interpretation of Māori concepts of health and wellness. Traditional Māori healing practices also raised a number of questions in relation to traditional healing practices within mainstream and Māori Health Provider settings (or the absence of traditional healing practices from these settings).

Recommendations

The study uncovered facilitators and barriers as perceived by RN participants which have posed a number of questions. Māori Health Providers continue to evolve and develop to meet the needs of the community. However many of the current contracts do not support RNs to work holistically with whānau. The prevalence of type II diabetes and incidence of complications are increasing. Māori are disproportionately affected and have unequal access to diabetes care (Gentles, et al, 2007; Robson & Harris, 2007; Naqshbandi, et al, 2009). The results generated questions within each of the themes identified in the study. Under each theme, these are as follows:

Funding and Contracts

- Why are current contracts inconsistent leading to inequity between providers?
- Why are some providers unable to access contracts for RNs to work with individuals and whānau who have a history of type II diabetes?
- Why do many contracts fail to reflect Government policy?
- Why do Māori Health Providers compete with each other to obtain and maintain contracts under the current system?

- Whānau ora funding and contracts are now available from Government agencies. Do these contracts reflect the recommendations made by the whānau ora taskforce or do they focus on individual output driven indicators (Durie, et al, 2010).
- How much time, money and resources do Government agencies spend on administration of these contracts?
- Māori Health Providers may hold multiple contracts and are accountable for the reporting requirements of each contract. How many resources are used in fulfilling reporting requirements by staff?
- Following on from the above question, one must ask if the reporting requirements for Māori Health Providers are equitable with other health care provider reporting requirements within the primary health care sector.

As demonstrated by the results and from the literature, contracts that adopt a whānau centred approach facilitate clinical nursing practice and improve health outcomes. Many contracts adopt a ‘contract for condition approach’ creating a substantial barrier for clinical practice. Over the last twenty years Government policy, Māori Health Provider services, clinical nursing practice and the RN scope of practice have evolved, however it is unclear whether funding frameworks have changed to meet the current environment.

Recommend:

Research should be undertaken that specifically addresses the questions raised above in relation to current funding formulae and frameworks.

Primary Health Care Context

The CHWs’ role was identified as a facilitator that supported the RNs clinical practice. This occurred in a number of distinct ways: acting as a health navigator and advocate for whānau; improving access to healthcare by assisting with transport; assisting RNs to access to whānau; providing support and health education; follow-up and support. There are a number of questions in relation to CHWs that would benefit from further research:

- What training and education is available for CHWs?
- Is the current training appropriate for the needs of the CHWs?

- What is the role and scope of practice of CHWs?
- Are CHWs supported to reach their full potential?
- Who is responsible for the role of CHWs in this environment, for example, the Practice Manager or the RNs, and is this appropriate?
- Does the current funding and contract formulae affect CHWs' ability to work holistically with whānau?

Recommend:

Further research should be undertaken that specifically addresses the questions raised above in relation to the role of the CHW and the interaction between CHWs, RNs and MHPs in relation to 'contract for condition' funding.

RNs identified access to education and appropriate post graduate education as a facilitator. They noted an increasing number of Māori and Pacific Island students having clinical experience with MHPs. They identified that this was an important link to the future of MHP service provision and quality of services. However, RNs who work for Māori providers do not have a clear career pathway or pay parity that recognises experience or post graduate education and this is a potential barrier that raises some important issues namely:

- Why do RNs not have pay parity with their equivalent counterparts in other settings for example DHBs?
- Why is there no clear structured career pathway for RNs in this environment?

Recommend:

Research should be undertaken that specifically addresses the questions raised above in relation to current inequity in pay, conditions and career pathways. Notably, in the UK, RNs in primary health care facilities have equivalent career opportunities and salary scales as RNs working for Health Authorities (DHB equivalent). The salary scale is a banded system 1 to 8 and RNs are banded within band 5a to 8c dependent on experience, qualification and scope of practice (NHS, 2010).

Similarly, The National Nursing Centre Consortium (NNCC) in the USA has a career structure and salary scale for RN employees (Torissi, Hansen-Turton, 2005). Therefore

another area of research would be a solution based focus that explores adapting and adopting an existing career and salary framework from overseas that has a proven track record. The NNCC would be particularly appropriate because they serve a vulnerable underserved population to eliminate health disparities and the philosophy that underpins the organisation reflects the philosophy of Māori providers. This is particularly important when looking at the ageing workforce and New Zealand's ability to compete for health service staff in the global market.

Clinical Nurse Specialists

Several other areas were identified in relation to the primary health care environment that raised questions which would benefit from future research.

The role of the CNS was only briefly identified, and it was unclear from the analysis what role the diabetes CNS had in relation to the aims of the study.

- What role does the diabetes CNS have in supporting RNs who work for Māori providers?
- Does the role of the CNS support whānau centred care?

Intersectoral Collaboration – The role of the Community Pharmacist

The role of the community pharmacist was identified as a facilitator. The example given was very interesting and raised a number of questions.

- The community pharmacist provided whānau centred education and facilitated open dialogue in relation to compliance with medication. Is this a common collaborative relationship?
- Do other providers utilise community pharmacists in this way?
- Can this innovative practice improve compliance with medication?
- Did this intervention improve both compliance and increase the number of people who actually collect prescription medication from the pharmacy
- How many individuals with a diagnosis of type II diabetes and complications fail to collect prescription medications from community pharmacists and why?

Recommend:

Research should be undertaken that specifically addresses the questions raised above in relation to the role of the community pharmacist for example: format into a more structured intervention and evaluated; explore how frequently individuals do not collect prescription medications and identify why they do not.

Whānau Ora Funding

As previously discussed whānau ora funding and contracts are now available from Government agencies.

- What will the effect be on the primary health care landscape?
- Will further fragmentation of services occur as new providers compete for various contracts?
- Will whānau ora funding/contracts result in another layer of fragmented services that individuals and whānau will have to negotiate in order to access services?
- Are existing MHPs who have whānau ora funding de-constructing existing services in order to reorientate services toward a whānau centred approach?
- How will whānau ora funding support the practice of RNs for example development of a specialist generalist RN role within this setting?

Recommend:

Research should be undertaken that specifically addresses the questions raised above. An environmental scan would give a rapid overview of what has occurred in the local region. For example how many new providers have sprung up since funding was made available and what services do they offer.

Type II Diabetes

The importance of the relationship with individuals and their whānau was a key facilitator and evidence demonstrated that this is an important aspect of self-management, understanding and attendance to appointments (Tipene-Leach, et al, 2009; Handley, et al, 2010). Health literacy and the need to present complex information in a way that the

individual and whānau could relate to was a key aspect of clinical practice. The RN participants discussed screening whānau and raising awareness of risk of developing diabetes and how there was no systematic way to do this within the current environment (NSGG, 2003; Gentiles, et al, 2007).

RN participants worked holistically with whānau to increase understanding; undertake screening; assessment and did so in a culturally competent manner in partnership with whānau and the local community. The RNs worked innovatively and imaginatively to provide appropriate education and maximise whānau involvement. This was frequently undertaken beyond the scope of contracts and unfunded. This raises the following questions:

- Why are services unfunded and unrecognised?
- The RN participants demonstrate innovative nursing practice and these interventions may be very effective but as they may occur beyond the scope of contracts and reporting mechanisms they are not evaluated which would be useful to inform RNs clinical practice and funding/contracts.
- Following on from the above, these techniques which are anecdotally very effective are not shared with other providers.

Recommend:

Research should be undertaken to identify the frequency that RNs provide holistic care beyond the scope of contracts. Innovations that maximise whānau engagement should have the following identified: how frequently they are undertaken; evaluation of the intervention which is inclusive of Māori values (Janssen, 2008).

The use of traditional Māori healing practices was also discussed. This aspect of health and wellness raised many questions in relation to Māori Health Provider services as highlighted previously. Traditional healing practices for example rongoa have the potential to enhance health and wellness. This aspect of Māori health was not the focus of the study and due to my narrow definition of Māori concepts and paradigms of health was not included in the literature review.

Recommendations for Future Researchers

As a result of the researcher's own experience many lessons have been learned, some are practical and others are related to personal growth and understanding. The practical organisation of undertaking research was not something I considered would be a problem. I had 28 years of full time clinical experience as an RN and was used to being efficient, organised and responsive to unexpected changes. With my husband's support I was also used to managing time and family commitments as we have four children. Therefore my underlying assumptions were challenged when I experienced difficulty organising and undertaking focus group interviews.

For example, arranging a convenient time for participants, facilitator and researcher was difficult and time consuming. Unexpected problems arose even after confirmation of focus group appointments. Further challenges arose when there were fewer participants than expected. However, all of these challenges provided rich learning experiences and unexpected opportunities for example the conversation over kai with the CHW. Practical problems with equipment and rooms have taught me to expect the unexpected and be prepared. As a result of the challenges outlined there a number of things that I would consider doing differently in the future. They are:

- I underestimated the actual number of participants which could influence the research results and therefore it is important to build this into research design (Fain, 1995). Although the majority of RNs employed by the providers expressed an interest in the research and participating, the logistics of finding suitable times for everyone was very difficult. Unexpected changes and delays proved time intensive and adversely affected my timeline, impacting on personal commitments
- The time of the focus group interview is also important and must be considered. I had some reservations about conducting one of the interviews at a breakfast meeting. My concerns were related to possible time restrictions that may have affected the focus group discussion. Although this did not appear to be an issue there is potential that it could have affected the depth of conversation and the results.
- Data collection raised some unexpected challenges as both focus group and individual interviews were used. The intention was to conduct focus group interviews only.

Recommend:

- Allowing more time for the data collection phase of the research would accommodate any possible delays.
- Ensure that adequate time is available to conduct the focus group interview for example, negotiate a time at the end of the day.
- Consider having a mixed method for collecting data that is inclusive of focus groups and individual interviews to allow more flexibility. By having a more flexible method and utilising both individual interviews and focus groups there would also be the potential to recruit more participants at each locality which would enrich the data.

As a final point, RNs discussed and explored the nature of their role with individuals and whānau who have a diagnosis of type II diabetes. They demonstrated commitment, pro-active and innovative practice in order to work holistically with whānau. Providing light refreshments allowed for relaxed open conversation to occur on completion of the interview. Although these conversations have not been used in the research they provided context and assisted my interpretation of the results. The way that the current primary health care environment influences and impacts on the RNs interviewed was apparent.

Chapter Seven - Conclusion

“Most experienced clinicians in nursing, medicine and allied health now recognise that the contemporary healthcare environment calls for our practice to be justified by sound, credible evidence”.

(Osborne & Gardiner, as cited in Courtney & McCutcheon, 2010, p45).

Throughout the 20th century Māori have struggled to regain the right of self-determination underpinned by the articles of the Treaty of Waitangi/Te Tiriti o Waitangi. In Aotearoa/New Zealand successive Governments have dominated Māori affairs. For example, between 1911 and 1920 Māori lost half of their remaining land through Government policy (Orange, 2009). Language, a central component of cultural identity was systematically eroded by Government policy commencing with the 1867 Native Schools Act that ensured only English was used in the education of Māori children and the Hunn Report in 1961 described Te Reo Māori as an ancient relic of Māori culture (Māori Language Commission, nd). Māori interests continued to be disregarded by successive Government policy throughout the 1960s and 1970s (Orange, 2009).

However, since the 1970s there has been a growing global recognition of the aspirations of indigenous peoples by dominant cultures. This is largely due to the efforts of indigenous leaders and the work of the WHO and UN in the post war era (Blaisdell, 1998; Cunningham & Stanley, 2003; UN, 2007; WHO, 2007a; WHO, 2008; Royal, 2009). Research demonstrates that greater control over Government policy, health services, promotion of language and other cultural activities by indigenous populations has improved health, socio economic and education outcomes (Moran, 2000; WHO, 2007a).

During the last twenty years Māori Health Providers have developed to provide comprehensive and effective health services supported by Government policy and funding (Timu-Parata, 2006; CBG, 2009). RNs who work in this environment have the potential to improve health inequities by improving access and affordable to culturally appropriate healthcare (MOH, 2000a; MOH, 2001; MOH, 2002c; MOH, 2002e). This is particularly important for individuals and whānau at risk of developing or with a diagnosis of type II diabetes (MOH, 2002c; Coppel, et al, 2009).

This study aimed to identify factors in the current primary health care system that acted as either a facilitator or barrier for RNs to work holistically with individuals and whānau at risk of developing or with a diagnosis of type II diabetes. The results add to what is already known and clearly demonstrate facilitators and barriers as perceived by RN participants. The RNs demonstrated skill and understanding by making links between the everyday experience and biomedical targets, for example, blood pressure and HbA1c levels and utilised a wide variety of resources to assist understanding and engagement. They did so through the development of relationships that displayed understanding of power in relationships and a strong understanding of self.

The RN participants embodied the principles of Te Tiriti o Waitangi/Treaty of Waitangi in their clinical nursing practice. They showed commitment to working in partnership using a whānau ora approach. The RN participants worked holistically and employed Māori Health Models to deliver culturally appropriate care to individuals and whānau who had a diagnosis of type II diabetes regardless of the constraints of ‘contract for condition’ funding. The significance of disparities between Government strategic direction and the current contract environment was evident as participants discussed the impact of these on clinical nursing practice.

The purpose of the study was to explore how RNs employed by Māori Health Providers were supported to work in a holistic way with people who have type II diabetes, within the current primary health care system. The specific aims of the study were to:

- Identify elements of the current primary health care system that facilitate RNs’ ability to work holistically with people who have a diagnosis of type II diabetes
- Identify elements of the current primary health care system that create barriers for RNs to work holistically with people who have a diagnosis of type II diabetes
- Identify how RNs incorporate these quality indicators, such as HbA1c, into the work that they undertake with individuals and within Māori paradigms of health.

The theoretical ideas underpinning the research and providing the framework for analysis position critical inquiry and reflection on social reality at its centre (Freire, 1996; Crotty, 1998). Research methods were identified that were appropriate for the purpose of this

research from the literature review. Qualitative research allows exploration of the lived experience between individuals and the way that they view their world (Fitzgerald & Field, as cited in Courtney, 2005). The research employed case study as a research method and analysed data thematically (Yin, 1994; Brenkman, as cited in Crotty, 1998).

A literature review was undertaken with the aim of identifying gaps in knowledge, key emerging themes and appropriate research methods. The literature review produced a significant amount of relevant information that informed the research but there were noticeable gaps, particularly in relation to RNs who work within indigenous concepts of health and wellness. The main themes of the literature review centred around four main concepts:

- Evolution of the role, scope of practice, and responsibilities of RNs working in Primary Health Care
- Diabetes, prevalence, prevention, management and management of complications in Primary Health Care
- Intersectoral collaboration in Primary Health Care and health promotion
- Eugenics and socio economic determinants of health in relation to health and wellbeing

The themes that emerged from the data analysis fell into three over-arching categories. The three categories were related to the contracting environment; the context of primary health care and type II diabetes. The categories themes and sub-themes were interwoven with and the whole process was very circular and spiraling. The specific aims of the study were achieved by clearly identifying aspects of the current primary health care system that facilitated or created barriers as perceived by RN participants.

However, by identifying facilitators, barriers and the innovative way that RNs incorporate biomedical targets into holistic care the study has posed more questions than it has answered. The notion of evolution threads throughout this study and was evident in the changes that have occurred over the last twenty years in Primary Health Care, RNs' role and scope of practice and Māori Health Provider Development. The biggest perceived influence on RN

participants' clinical practice as a facilitator or barrier was the current funding and contract environment.

The subtle power in the relationship between Māori Health Providers and Government Agencies was apparent. The inconsistencies between Government strategies and the funding and contract environment were also apparent. Evidence of institutional racism was evident in policy, funding, contracts and reinforced health inequities. Urgent action is required to redesign the current funding and contract formulae to evolve to meet Government strategic direction and address health inequities. This is important as Māori Health Providers continue to evolve and meet the needs of their community often unrecognised and unfunded.

The study demonstrated the power relationship between Government agencies and Māori Health Providers. In order to address the structural determinants of health equitable partnerships must develop between Māori Health Providers and Government agencies. It is likely that initiatives and policies designed to address institutional racism and health inequity must start at ministerial level and address fundamental issues that impact on PHC. Government policy must be underpinned by Te Tiriti o Waitangi/The Treaty of Waitangi in order to develop culturally appropriate PHC services that are sustainable. It is likely that this will require significant input by policymakers and new legislation in order to be effective.

The Treaty of Waitangi was first agreed and signed on 6th February 1840. The true intention of Te Tiriti o Waitangi/The Treaty of Waitangi is one of respect, equity and partnership and provides a framework of how people should behave towards one another. It is a political statement that cannot sit in policy documents if issues of inequity that result in poor health outcomes for Māori are to be addressed in Aotearoa/New Zealand. We each have a responsibility to acknowledge Te Tiriti o Waitangi/The Treaty of Waitangi and incorporate the essence of this in our clinical nursing practice and everyday life as so clearly demonstrated by the RNs who participated in this study (Walker, 1990; Consedine & Consedine, 2005; Wipa (ed), 2005).

Finally, as a student midwife in the early 1980s the Midwife Tutor informed me that the word midwife literally meant 'with woman' and this would be the most important thing that she could ever teach. I really embraced being 'with women' as the core concept of practice and felt that the word nurse should mean 'with people'. I embraced this concept as the core of

my clinical nursing practice and found that this related well to the study. I was very aware of my way of being in the world and my world view as just one construct. Journalling and reflective practice were valuable throughout the process of research.

Additionally, the research process has been very circular with many spiraling threads which reflect nature and the holistic theme of the study. There are many interwoven structures that influence clinical nursing practice and these are the same structures that influence health, wellness and the wider determinants of health. The concepts of evolution and emancipation were recurrent themes throughout the study. These concepts underpin Māori Health Provider development and the scope of clinical nursing practice development over the last twenty years.

Unfortunately these concepts appear to be absent from many Government funding frameworks and many PHC contracts demonstrating institutional racism inherent in the current system. It is time for Government policy makers to review and redesign the current funding framework in order to support ongoing development of culturally appropriate PHC. This will support Government strategic direction that facilitates Māori Health Provider development and clinical nursing practice.

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