

**‘Walking the Line’**  
**Managing Type 2 Diabetes: A grounded theory study**  
**of Part-Europeans from Fiji**

A thesis submitted in partial fulfilment of the requirement  
for the degree of  
Master in Health Science

Department of Nursing Studies  
Auckland University of Technology

**Sandra Marcia Simpson**

November, 2004

## **ATTESTATION OF AUTHORSHIP**

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the qualification of any other degree or diploma of a university or other institution of higher learning, except where due acknowledgement is made in the acknowledgements.

.....

**Sandra Marcia Simpson**

## ACKNOWLEDGMENTS

This thesis is dedicated to the memory of my father and to my wider family, the Part-Europeans from Fiji. I would like first and foremost to thank the nine Part-Europeans that took part in this study. Their willingness to disclose their thoughts and emotions related to managing diabetes has enabled me to undertake this specific field of research. Ena yalo vakarokoroko kei na vei dokai, au vei vakaraitaka na noqu vakavinavinaka ena nomuni solia na nomuni gauna, moni vakaitavi ena dua na vakadidike me baleta na 'mate ni suka' se na 'diabetes'. Sa vinaka sara vakalevu na nomuni veitokoni. I too share in your hope that this thesis will help others.

I am deeply grateful to my supervisor Jan Wilson for her academic support, her wisdom, her insight, and her guidance throughout this process.

Many others have also made this thesis possible and my grateful thanks go to Mary MacManus who many years ago provided me with the opportunity to pursue a career in nursing and encouraged me many times when I wanted to drop back and take the easy road, her belief in my ability gave me the ability to believe in myself. Thanks also to the grounded theory group for their input, in particular Dr. Lynne Giddings, Julianne Hall, Gael Mearns, and Grace Wong.

I would like to acknowledge my grandson Alexander who has been a constant source of delight and kept me going through the difficult times. I also acknowledge my family, friends and colleagues who have given me the time and space that I needed to complete this thesis.

At first, the gathering of material and working on this thesis re-awakened the shame that I have always felt as a Part-European, and the marginalisation of belonging to a race of

people known as *Kai Loma*, betwixt and between, and not quite one or the other. I finish this thesis with an informed knowledge of the origins of my roots and an appreciation of being able to stand with one foot in both the Fijian and European cultures, and the ability to move between. I have much to thank Jan Wilson for the part that she played in this journey.

The following poem was written for my family and in remembrance of my ancestors who had to endure the oftentimes social and political segregation of our race.

**Levukalailai**

The torch would blow and the lamps extinguish  
Each time we passed the sacred ground  
Of our ancestors' graves  
Too bad there was no other way  
To circumnavigate the fear  
For our house was built so near  
A few paces anyway  
So our going in, and our going out  
Was always watched closely  
By family that came before  
To scatter their seed on Fiji's shore  
Harsh and stern  
Their presence kept a vigilant hold over our souls

This research received approval from the Auckland University of Technology Ethics Committee on the 19<sup>th</sup> November 2002.

## CONTENTS

ATTESTATION OF AUTHORSHIP .....	ii
ACKNOWLEDGMENTS .....	iii
CONTENTS .....	v
LIST OF TABLES.....	ix
LIST OF FIGURES .....	x
ABSTRACT .....	xi
 <b>CHAPTER ONE: INTRODUCTION AND BACKGROUND.....</b>	<b>1</b>
<b>Introduction .....</b>	<b>1</b>
<b>Contextual Background.....</b>	<b>2</b>
Fiji and the History of Part-Europeans .....	2
My Own Background.....	5
<b>Overview of This Study .....</b>	<b>6</b>
Aims of This Study .....	7
Research Question.....	7
Research Approach .....	7
Significance of This Study .....	8
Structure of This Thesis .....	8
 <b>CHAPTER TWO: LITERATURE REVIEW.....</b>	<b>10</b>
<b>Introduction .....</b>	<b>10</b>
<b>Diabetes: Diagnosis, Prevalence, and Management.....</b>	<b>11</b>
Recommended Diagnostic Criteria and Classical Symptoms of Hyperglycemia.....	12
Pathophysiology of Type 2 Diabetes .....	13
The Aetiology of Type 2 Diabetes .....	14
Risk Factors.....	15
Prevalence of Type 2 Diabetes.....	15
Pacific Islanders and Type 2 Diabetes in New Zealand.....	17
Long-Term Complications .....	18
New Zealand Diabetes Services.....	20
Self-Managing Statement for This Study.....	21
<b>Self-Management Activities Required for Type 2 Diabetes .....</b>	<b>22</b>
Blood Glucose Self-Monitoring .....	23
Lifestyle Changes.....	23
Management of Hypoglycemia .....	24
Exercise .....	26
Hygiene Care.....	26

Conventional Pharmacological Treatment .....	27
Complementary and Alternative Therapy .....	28
Barriers to Self-Management Care .....	31
<b>Summary .....</b>	<b>34</b>
<b>CHAPTER THREE: RESEARCH METHODOLOGY AND METHODS.....</b>	<b>35</b>
<b>Introduction .....</b>	<b>35</b>
<b>Qualitative Research and Grounded Theory .....</b>	<b>35</b>
Symbolic Interactionism .....	37
Grounded Theory Processes and Methods .....	40
Generation of Theory .....	42
Constant Comparative Analysis .....	42
Theoretical Sampling .....	43
The Core Category and the Basic Social Psychological Process .....	43
<b>The Research Process .....</b>	<b>44</b>
Sample Criteria .....	45
Sample Characteristics .....	45
Sampling Strategy .....	45
Theoretical Sampling .....	46
Theoretical Questioning .....	47
<b>Ethical Considerations For This Study .....</b>	<b>48</b>
Ethical Approval .....	48
Cultural Sensitivity .....	49
Ethical Principle of Beneficence .....	50
Ethical Principle of Respect for Human Dignity .....	51
Ethical Principle of Justice .....	52
<b>Method .....</b>	<b>53</b>
Data Collection .....	53
Field Notes .....	55
Data Analysis Overview and Explanation of Terms .....	56
Coding Identification .....	57
Open Coding Process .....	57
Axial Coding .....	59
Selective Coding .....	60
Strauss & Corbin's Causal Paradigm .....	61
Diagrams and Memos .....	63
<b>Rigour .....</b>	<b>64</b>
Reflexivity .....	65
<b>Conclusion .....</b>	<b>67</b>

<b>CHAPTER FOUR: CARRYING ON REGARDLESS .....</b>	<b>68</b>
<b>Introduction .....</b>	<b>69</b>
<b>Stage One Paradigm component .....</b>	<b>70</b>
<b>The Cause: Receiving Bad News.....</b>	<b>71</b>
Causal Conditions sub-category: What a difference a day makes .....	72
Causal Conditions sub-category: Fearing loss and change .....	74
<b>The Context: Lacking Face and Form .....</b>	<b>77</b>
Contextual Conditions sub-category: Not knowing .....	78
Contextual Condition sub-category: Nothing to see so nothing to do .....	81
<b>Actions/Interactions: Disengaging.....</b>	<b>83</b>
Actions/Interactions: sub-category: Disconnecting and detaching from conventional medical care .....	84
<b>The Strategy: Sticking with the Tried and True .....</b>	<b>87</b>
Strategies: sub-category: Using traditional remedies to keep going.....	90
<b>Outcome Category: Carrying on Regardless .....</b>	<b>94</b>
Sub-category: Hitting it.....	95
Sub-category: Suspending time and motion and control .....	97
<b>Summary of Stage One: Carrying on Regardless .....</b>	<b>100</b>
 <b>CHAPTER FIVE: STAGE TWO ATTEMPTING BALANCE IN TIME AND MOTION AND CONTROL .....</b>	 <b>103</b>
<b>Introduction .....</b>	<b>104</b>
<b>Stage Two Paradigm Component.....</b>	<b>105</b>
<b>The Cause: Experiencing Bad Things.....</b>	<b>105</b>
Causal sub-category: Counting the cost and feeling the loss .....	108
<b>Contextual Conditions Category: Finding the Fault Line .....</b>	<b>110</b>
Contextual sub-category: Looking at the man in the mirror .....	113
<b>Actions/Interactions: Engaging With Self and With Others .....</b>	<b>118</b>
Actions/Interactions sub-category: Engaging with the man in the mirror .....	120
<b>Strategies Category: Making Some Changes .....</b>	<b>121</b>
Strategy sub-category: Leaving things behind and leaving things out .....	122
<b>Outcome/Consequence: Attempting Balance in Time and Motion and Control ..</b>	<b>124</b>
Outcome sub-category: Finding what works .....	125
<b>Summary of Stage Two.....</b>	<b>129</b>

<b>CHAPTER SIX: BALANCING, UNBALANCING, AND RECOVERING BALANCE .....</b>	<b>131</b>
<b>Introduction .....</b>	<b>132</b>
<b>Stage Three Paradigm component .....</b>	<b>133</b>
<b>The Cause: Bad Moon Rising .....</b>	<b>134</b>
Causal sub-category: Seeing trouble on the way .....	136
<b>Contextual Conditions: Seeing Through the Looking Glass Widely .....</b>	<b>137</b>
Contextual sub-category: Uncovering wider structural conditions.....	139
Contextual sub-category: Identifying the Pacific way .....	145
<b>Actions/Interactions: Attaching Face and Form .....</b>	<b>149</b>
Actions/Interactions sub-category: Engaging with the enemy.....	152
<b>Strategies Category: Straddling The Line .....</b>	<b>154</b>
Strategies sub-category: Balancing choices .....	155
Strategy sub-category: Self-determining.....	156
<b>Consequence Category: Balancing, Unbalancing, and Recovering Balance .....</b>	<b>157</b>
Outcome sub-category: Experimenting with dietary control .....	158
Sub-category: Experimenting with treatment options.....	161
Sub-category: Experimenting with exercise .....	163
<b>Summary of Stage Three .....</b>	<b>165</b>
<b>CHAPTER SEVEN: DISCUSSION AND CONCLUSION.....</b>	<b>166</b>
<b>Introduction .....</b>	<b>166</b>
<b>The Basic Social Psychological Process of ‘WALKING THE LINE’ .....</b>	<b>166</b>
<b>The conceptual model of WALKING THE LINE .....</b>	<b>169</b>
Stage One and WALKING THE LINE .....	170
Stage Two and WALKING THE LINE.....	171
Stage Three and WALKING THE LINE.....	172
<b>Comparisons with Relevant Literature.....</b>	<b>174</b>
Receiving Bad News .....	177
Experiencing Bad Things.....	178
Bad Moon Rising .....	179
Sticking with the Tried and True .....	181
Hitting It.....	182
<b>Implications of This Study for Nursing and Further Research.....</b>	<b>187</b>
<b>Limitations of This Study .....</b>	<b>189</b>
<b>Strengths of This Study .....</b>	<b>189</b>



<b>REFERENCES .....</b>	<b>191</b>
-------------------------	------------

<b>LIST OF APPENDICES.....</b>	<b>200</b>
Appendix A: Ethics Committee Approval .....	201
Appendix B: Glossary of Medical Terms .....	202
Appendix C: Participant Information Sheet.....	207
Appendix D: Consent Form .....	209
Appendix E: Transcriber Confidentiality Agreement .....	210
Appendix F: Self-Care Questionnaire.....	211
Appendix G: Theoretical Questioning .....	212
Appendix H: Field Notes Example .....	213
Appendix I: Memos Example .....	215
Appendix J: Diagrams .....	217
Appendix K: Diagrams .....	218

## LIST OF TABLES

Table 1: Key to Coding Identification .....	57
Table 2: An Overview of the Major Categories and Theory of: Walking The Line.....	62
Table 3: Stage One: The Process of Carrying on Regardless .....	70
Table 4: Stage One: The Cause: Receiving Bad News .....	71
Table 5: Stage One: Causal Conditions sub-category: What a difference a day makes .	72
Table 6: Stage One: Causal Conditions sub-category: Fearing loss and change .....	74
Table 7: Stage One: The Context: Lacking Face and Form.....	77
Table 8: Stage One: Contextual Conditions sub-category: Not knowing .....	78
Table 9: Stage One: Contextual Condition sub-category: Nothing to see so nothing to do .....	80
Table 10: Stage One: Actions/Interactions: Disengaging .....	83
Table 11: Stage One: Actions/Interactions: sub-category: Disconnecting and detaching from conventional medical care.....	84
Table 12: Stage One: The Strategy: Sticking with the Tried and True.....	87
Table 13: Stage One: Strategies: sub-category: Using traditional remedies to keep going.....	90
Table 14: Stage One: Outcome Category: Carrying on Regardless.....	94
Table 15: Stage One: sub-category: Hitting it .....	95
Table 16: Stage One: sub-category: Suspending time and motion and control .....	97
Table 17: Stage Two: Attempting Balance in Time and Motion Control.....	105
Table 18: Stage Two: The Cause: Experiencing Bad Things .....	105
Table 19: Stage Two: Causal sub-category: Counting the cost and feeling the loss ....	108
Table 20: Stage Two: Contextual Conditions Category: Finding the Fault Line .....	110
Table 21: Stage Two: Contextual sub-category: Looking at the man in the mirror ....	113
Table 22: Stage Two: Actions/Interactions: Engaging With Self and With Others ....	118
Table 23: Stage Two: Actions/Interactions sub-category: Engaging with the man in the mirror .....	119
Table 24: Stage Two: Strategies Category: Making Some Changes .....	121
Table 25: Stage Two: Strategy sub-category: Leaving things behind and leaving things out .....	122

Table 26: Stage Two: Outcome/Consequence:	
Attempting Balance In Time And Motion And Control .....	124
Table 27: Stage Two: Outcome sub-category: Finding what works.....	125
Table 28: Stage Three: Balancing, Unbalancing and Recovering Balance .....	133
Table 29: Stage Three: The Cause: Bad Moon Rising.....	134
Table 30: Stage Three: Causal sub-category: Seeing trouble on the way.....	136
Table 31: Stage Three: Contextual Conditions:	
Seeing Through the Looking Glass Widely .....	137
Table 32: Stage Three: Contextual sub-category:	
Uncovering wider structural conditions .....	139
Table 33: Stage Three: Contextual sub-category: Identifying the Pacific way .....	145
Table 34: Stage Three: Actions/Interactions: Attaching Face and Form.....	149
Table 35: Stage Three: Actions/Interactions sub-category: Engaging with the enemy	152
Table 36: Stage Three: Strategies Category: Straddling The Line .....	154
Table 37: Stage Three: Strategies sub-category: Balancing choices .....	155
Table 38: Stage Three: Strategy sub-category: Self-determining.....	156
Table 39: Stage Three: Consequence Category: Balancing, Unbalancing, And	
Recovering Balance .....	157
Table 40: Stage Three: Outcome sub-category: Experimenting with dietary control ..	158
Table 41: Stage Three: sub-category: Experimenting with treatment options.....	161
Table 42: Stage Three: sub-category: Experimenting with exercise .....	163

## LIST OF FIGURES

Figure 1: Receiving Bad News .....	68
Figure 2: Sticking with the Tried and True.....	89
Figure 3: Experiencing Bad Things .....	103
Figure 4: Man in the Mirror .....	116
Figure 5: Attempting Balance .....	126
Figure 6: Bad Moon Rising.....	131
Figure 7: The Three-Stage Managing Progression of WALKING THE LINE .....	168
Figure 8: WALKING THE LINE .....	169

## **ABSTRACT**

This study examines the experience of managing Type 2 diabetes from the perspective of Part-European people from Fiji who have this disorder. A qualitative approach was used, and the methodology was grounded theory based on the theoretical perspective of symbolic interactionism. Data was collected from the in-depth interviews of nine participants who have been living with Type 2 diabetes. Text from the interview transcripts was analysed using the version of grounded theory advocated by Strauss and Corbin (1998). This process facilitated the discovery of ‘Carrying On With Life And Living’ as the main concern shared by Part-Europeans managing Type 2 diabetes. It also identified the substantive theory of ‘Walking The Line’ as the core category and the basic social and psychological process by which Part-Europeans resolve their main concern of ‘Carrying On With Life And Living’. This was a three-stage process involving firstly ‘Carrying on Regardless’, secondly ‘Attempting Balance in Time and Motion and Control’, and thirdly ‘Balancing, Unbalancing, and Recovering Balance’. The results of this study reveal that the social and historical contexts of Part-European culture, such as heavy drinking, carrying on with life and living in the face of adversity, and taking traditional medicine impact significantly throughout their managing process. Findings of this study may contribute to development of some culturally aware strategies that could assist healthcare services to provide appropriate support, intervention, and education for Part-Europeans with Type 2 diabetes. This study also addresses the lack of studies concerned with the management of Type 2 diabetes in Pacific peoples and serves to inform research initiatives and priorities set by the Health Research Council of New Zealand.

## CHAPTER ONE: INTRODUCTION AND BACKGROUND

---

### **Introduction**

The overall purpose of this qualitative study was to explore the process of diabetes management from the perspective of Part-Europeans from Fiji who have this disorder. Grounded theory was used to examine the phenomena of managing.

Diabetes is a major health problem and is now considered a global epidemic (King, Aubert, & Herman, 1998). While diabetes is a major health concern for all New Zealanders, Pacific Islanders bear a disproportionate share of this burden (Diabetes New Zealand & PricewaterhouseCoopers, 2001). However, this population has been under-represented in diabetes research.

It is widely acknowledged that complications of diabetes can be controlled and minimised by following healthcare directives for lifestyle changes. Changes such as increasing physical activity, losing weight, changing dietary patterns, and taking medication alter the effect of diabetes on an individual. The responsibility for implementing such lifestyle changes rests on those who daily need to manage their disorder. Pacific Islanders' experiences of self-management are unresearched.

Worldwide multidisciplinary attention has focused on the prevalence, incidence, and complications of Type 2 diabetes as well as on directives for its management. There is, however, a paucity of studies that provide a holistic perspective that considers the management of diabetes from within the social and cultural context and from a unique ethnic perspective. This study aims to provide such a perspective by using grounded theory to discover how Part-Europeans experience Type 2 diabetes and the process they use in managing this disorder.

The term Part-European is used extensively in this study and requires explanation; therefore this chapter opens with an exploration of the contextual background for this study. This will include my own background and explain my interest in both Type 2 diabetes and Part-Europeans from Fiji. The aims of this research, the research question, and the methodological approach will follow. I then present the significance of this study. This chapter concludes with an overview of the structure of this thesis.

## **Contextual Background**

### ***Fiji and the History of Part-Europeans***

In the wider sense, and especially when in another country, the participants in this study would be classed as Fijians. In Fiji the political and social structure of racial stratification and identification has resulted in classification of these participants as Part-European. There is a need to maintain political sensitivity and integrity for the participants and place the study in the context of such classification. To accomplish this I will trace the origins of the term Part-European by outlining the history of this categorisation and considering the present ramifications.

The Fiji Islands are in the South West Pacific Ocean, south of the equator and north of the tropic of Capricorn and cover an area of over 1.3 million<sup>2</sup> kms. Altogether there are over 300 islands including two main islands, Viti Levu and Vanua Levu, and several other important groups of islands, and responsibility for the administration of Rotuma (Stanley, 1996).

A variety of events have impacted on the population of these islands. In the 18<sup>th</sup> century there were the warring invaders from Tonga and Samoa and an influx of European traders and beachcombers. Also labourers from the Solomon' Islands and Vanuatu were brought in to work (Howe, Kiste, & Lal, 1994). When Fiji became a British Crown Colony in 1874 the Colonial administration brought in Indian indentured

labourers to work the sugar and cotton plantations, and during this period people from the neighbouring South Pacific as well as Chinese immigrants added to the diverse blend of cultures and ethnicities (Harris & Zinman, 2000).

The first Part-Europeans were descendants of the first white settlers and Fijian women and established themselves mostly in Levuka, Vanua Levu, or other outlying islands. Over the years these descendants intermarried and established kinship ties, so generations are now linked through marriage or bloodlines. They have their own language that is now known as the 'Part-European language' (Riles, 1997) and is derived from both English and Fijian, with certain words incorporated into a patois unique to the Part-European culture (Simpson, 1974). This 'Part-European language' has its own idioms, a melange of expressions that remain uniquely their own. Many Part-Europeans are also fluent in both English and Fijian and can converse in all three languages simultaneously.

The first Part-Europeans were a distinctive cultural group and very little has changed. Their sense of identity and traditional cultural values are inherited from both ethnic values and belief systems. For example, many Part-Europeans accept without question the value of Fijian herbal knowledge and lore (Kelly, 1966). These beliefs remain today with the majority having great faith in the ministrations of medicinal leaves and massage. Most Part-Europeans will seek out a traditional herbalist as well as, or instead of, Western medicine (Simpson, 1974).

The category label of 'Part-European' evolved through Fiji's colonial past in which they were first called 'half caste', to classify the mixture of European and any native race. At this time the term had negative racial connotations for most Part-Europeans and this negativity continues (Osborne, 1998; Simpson, 1974). Over the years the term 'half caste' was replaced with PEND, Persons with European Descent, then PMED,

signifying People of Mixed European and native Descent until they were officially classified as Part-Europeans in the census of 1956 (Osborne, 1998).

Currently the official census categorises the population of Fiji under the two major racial groupings of either Fijian or Indo-Fijian. Any ethnic group that does not fit into either of these two major racial groupings are classified as 'Others'. Whilst the term Part-European remains the ethnically symbolic means of identification for people with European and Fijian ancestry in Fiji, Part-Europeans have now been relegated to 'Others' in the Fiji census. This 'Others', for some Part-Europeans, is a distasteful remnant of the racial overtones attached to the first label 'half-caste' (Osborne, 1998; Riles, 1997).

Other expressions are less estranging and emotionally distancing, for example, the Fijian word *Kai Loma*, which means 'in between', is sometimes interchanged with Part-European (Simpson, 1974). Another term is *Vasu*, but this is not available for common use as it is bestowed directly from and through one's Fijian maternal line (Riles, 1997). The term *Vasu* began to be used more readily after independence from Britain and is therefore more familiar to a younger generation that have not lived under Colonialism (Osborne, 1998). I will now trace the genesis of the Part-European in New Zealand, offering some understanding of their present social and political marginalisation, which is relevant for my study.

During the early colonial era the British rule of class and colour imposed political and social structures of racial stratification and segregation (Geraghty, 1997). The Part-Europeans were betwixt and between the indigenous Fijian and the European, with no political authority or influence. The change in classification to Part-European was motivated by the need of the colonial government to combine with this racial group so they could retain political supremacy over the two other dominant racial groups (Fijians

and Indo-Fijians). The colonial administrators used Part-Europeans as interpreters and in minor administrative roles. In these roles they were often buffers to soften the impact of the dominant political position and philosophy of British colonialism (Kelly, 1966). As some Part-Europeans gradually assimilated the language and some of the cultural mores of Europeanism, the Fijians reacted against them as they did against the Europeans (Kelly, 1966). Their close relationship with the colonising power provided an upward social mobility that allowed some Part-Europeans economic opportunities. That these opportunities were not as easily accessible for other races compounded their alienation from their Fijian connections (Kelly, 1966).

Fiji became an independent Dominion, marking the end of British rule, in October 1970 (Lal & Vakatora, 1997). Even though post independence brought an economic boom and optimism about multiracialism, there was still a long history of racial and ethnic divide which led many Part-Europeans to migrate to countries like Canada, Australia, New Zealand, and the United States. After the first military coup in 1987 that overthrew a democratically elected government, underlying racial tensions drove many more Part-Europeans to reluctantly migrate in search of economic stability and opportunity. This study is conducted against this backdrop with participants of mixed racial heritage referred to as Part-Europeans living in New Zealand.

### ***My Own Background***

The impetus to study Part-Europeans came from my own mixed Fijian-European ancestry and position as a Part-European from Fiji. My father had Type 2 diabetes and he did not medically manage his condition very well, for he died in a hypoglycemic coma in Fiji. His life and death motivated my interest in the topic of diabetes.

My clinical experience as a Registered Nurse and Lecturer in the Bachelor of Health Science undergraduate nursing program has also been a major influence. For many



years I taught student nurses about the pathology and long-term complications that are the inevitable outcomes of mismanagement of diabetes. I have always emphasised that the diagnosis of diabetes is life-changing and that decisions have to be made each day that impact on the long-term treatment and ongoing management of this disorder. For some people these may be life and death decisions.

Nurses are in a good position to positively influence this decision-making in culturally safe and aware treatment programmes that ensure people are well informed, educated, and empowered to self-manage. Thus, the experiences of diabetes within my own family and as a Nurse Lecturer have led to my interest in carrying out research that may better enable nurses to intervene and improve the life of Part-Europeans living with Type 2 diabetes.

### **Overview of This Study**

This study began with my general interest in discovering the experiences of Part-Europeans from Fiji with Type 2 diabetes in order to understand how these experiences influenced their management of this disorder. Of particular interest was the basic psychosocial process that may be involved. I recognised and wanted to take into account the historical and geographical contexts within which the managing takes place, and I was also interested in how the experiences of managing might change during a lifetime and with changing circumstances. The primary purpose was to generate a theory of managing Type 2 diabetes that emerged out of interviews with Part-Europeans who had this disorder. I selected a grounded theory process of research, which would enable me to follow up this interest.

### ***Aims of This Study***

1. To interpret the experiences of managing diabetes Type 2 from the perspective of Part-Europeans who have this disorder.
2. To identify and explain the main concern that the participants have in the process of managing this disorder.
3. To identify, explain, and interpret the basic social and psychological processes (BSPP) involved in managing the disorder of Type 2 diabetes.
4. To use a grounded theory approach to generate a theory of managing that can identify and explain the process of managing Type 2 diabetes from the perspective of the participants.

### ***Research Question***

The question is distilled from the aims of the study and is, ‘What is the Part-European experience of the process of managing Type 2 diabetes?’

### ***Research Approach***

I chose qualitative research to expand my understanding of diabetes self-management and of the sociocultural context in which it occurs. The methodological approach of grounded theory is used, as it is consistent with the aims of this research. According to Morse and Field (1995), the goal of grounded theory is to study social situations with an ultimate purpose of generating credible theory for further testing and to discover underlying social forces that shape human behaviour. Grounded in the data of this study will be the basic social and psychological processes that help us to better understand how Part-Europeans manage Type 2 diabetes. The suitability of qualitative research and the methodological approach of grounded theory for this study are further explained in Chapter Three.

### ***Significance of This Study***

Understanding the participants' main concern in managing diabetes and how they resolve this main concern could contribute to the implications for healthcare directives for Part-Europeans self-managing diabetes. Raising awareness of how Part-Europeans manage this disorder could inform developers of culturally relevant intervention programs and thus prevent untimely death or long-term complications for Part-Europeans.

This study will also begin to fill the gap of studies about the management of Type 2 diabetes in Pacific Islanders and will also contribute to research initiatives and priorities set by the Health Research Council in New Zealand. Findings of this study may also be transferable to other Pacific Islanders and assist services to provide education and culturally supportive strategies for Pacific Islanders self-managing Type 2 diabetes. Such services could aid in the prevention or delay of long-term complications, which should improve wellbeing for all Pacific Islanders.

### ***Structure of This Thesis***

This thesis has seven chapters. The first chapter establishes the background, need, and nature of the study. In Chapter Two I present the classification, diagnosis, and pathology of Type 2 diabetes, as well as the aetiology, risk, and prevalence. I review literature related to services in New Zealand and self-management activities. A definition of self-management for this study is provided and is followed by a discussion of the barriers to self-management.

Chapter Three describes grounded theory, and the philosophy behind this methodology as well as the method and the process for data collection and analysis. Ethical considerations are discussed, along with the ways that methodological rigour was ensured.

There are three data chapters, corresponding with the three stages of the managing process for part-Europeans who have Type 2 diabetes. These chapters – Four, Five, and Six – present the study findings organised in the emergent categories of: **Carrying on Regardless; Carrying On While Attempting Balance;** and **Balancing, Unbalancing, and Recovering Balance.**

The seventh chapter describes the main concern of the Part-Europeans involved in this study and the basic social psychological process (BSPP) that participants use to resolve their main concern. This is identified as the emergent substantive theory of **WALKING THE LINE** and is discussed in relation to each of the three stages. Key categories of each stage of **WALKING THE LINE** will then be discussed in the context of existing literature. The potential benefits of the findings for Part-Europeans are discussed along with the implications for nursing practice and recommendations for further research. This chapter concludes by outlining the limitations and strengths of this study.

## CHAPTER TWO: LITERATURE REVIEW

---

### Introduction

Although an awareness of relevant literature is essential to the development of a research proposal, the aim of grounded theory is to allow theory to emerge directly from the data itself (Strauss & Corbin, 1998). Therefore this is not a comprehensive literature review about grounded theory studies in self-management or even about diabetes self-management. Such an extensive review would carry the risk of superimposing preconceived ideas onto the data (Chenitz & Swanson, 1986; Millken & Schreiber, 2001).

The first section of this chapter provides a brief introduction to diabetes before going on to explain Type 2 diabetes in greater detail. There are various forms of diabetes, classified by their terminology and aetiology, and I will use The American Diabetes Association and the World Health Organization recommended terminology, current classification, and diagnostic criteria for the classification of diabetes (ECDCDM, 2003; Shaw, Zimmet, MCCarty, & De Courten, 2000). There is a glossary to explain medical terms, Appendix B. I will then provide a brief review of Type 1 diabetes and use the current diagnostic criteria to explain the pathophysiology of both Type 1 and Type 2. From that point on I will concentrate only on Type 2, which is the focus of this study. The pathophysiology of Type 2 is given as well as its aetiology, risk factors, and worldwide prevalence.

In New Zealand, Part-Europeans from Fiji have been thrown into the wider melting pot of 'Pacific Islands people', and since there is no literature related to Part-Europeans or Fijian people with diabetes in New Zealand, nor any up-to-date statistics of diabetes

in Fiji, I am forced to concentrate on the relevant information available about Pacific Islanders in New Zealand.

I will review literature about the long-term complications that are likely to result from Type 2 diabetes, and then relate this literature to what is known about diabetes and Pacific Islanders in New Zealand. I will also give an outline of the services available in New Zealand. The definition of how the term ‘management’ is used for this study is given and this is followed by a brief summary of self-management activities that are required for people with Type 2 diabetes.

The review of self-management will also include information related to conventional pharmacology and to complementary alternative medicine. I will conclude by addressing the known barriers to self-managing Type 2 diabetes with particular emphasis on Pacific people.

### **Diabetes: Diagnosis, Prevalence, and Management**

Diabetes is a disorder characterised by an inability to properly transport and metabolise glucose. This inability can have a number of causes depending on the type of diabetes, but the common factor and the primary pathology is the alteration and availability of insulin (Capes & Anand, 2001). Insulin is a pancreatic hormone that controls the storage and release of glucose as well as the uptake of glucose by cells in peripheral tissues such as muscle (Tsalikian, 1990). Without insulin, or with insufficient insulin, glucose is unable to enter cells for energy. As a result, blood glucose levels rise producing a condition referred to as hyperglycemia (Tsalikian, 1990). The disorder of hyperglycemia causes damage to eyes, nerves, kidneys, and blood vessels (Nyhlén, 1990).

Diabetes was previously classified by age and onset and commonly referred to as either ‘juvenile-onset diabetes’ or ‘maturity-onset diabetes’ (Shaw et al., 2000). When

age and onset were not consistent with the type of diabetes, these age and onset references were replaced with labels based on the need or non-need for insulin. The terms Insulin Dependant Diabetes Mellitus (IDDM) or Type 1, and Non-Insulin Dependant Diabetes Mellitus (NIDDM), or Type 11 were adopted (Shaw et al., 2000).

Since 1998 the classification has again been revised and diabetes was re-classified by the aetiological process rather than the treatment modality (ECDCDM, 2003; Shaw et al., 2000). The current classification has eliminated the terms IDDM and NIDDM and, to prevent confusion with Roman numerals, Type 1 and 11 were replaced with Type 1 and Type 2. The current classification for establishing the diagnosis and classification of diabetes combines both the clinical stages of hyperglycemia and the aetiological types. This classification recognises that a person with diabetes can pass or progress through several clinical phases and may be on any treatment modality or form of therapy (ECDCDM, 2003; Shaw et al., 2000).

### ***Recommended Diagnostic Criteria and Classical Symptoms of Hyperglycemia***

The American Diabetes Association and the World Health Organization have used a fasting plasma glucose concentration of 126mg/dL (7.0mmol/L), or glycosylated hemoglobin (HbA<sub>1c</sub>) more than 6.9%, as the primary diagnostic criteria for the presence of diabetes (American Diabetes Association, 2004b; Shaw et al., 2000). When symptoms suggestive of diabetes are present, a random glucose measurement of over 200mg/dL (11.1mmol/L) is also diagnostic. In order to confirm this diagnosis an oral glucose tolerance test may be considered, but is not generally needed if the fasting plasma glucose values are in excess of 200mg/dL (11.1mmol/L) (Capes & Anand, 2001; Guthrie & Guthrie, 1997).

The classic clinical symptoms of hyperglycemia suggestive of diabetes are commonly termed ‘the three Ps’; polyphagia, polyuria, and polydipsia. Polyphagia, the

first of the three Ps, occurs as blood glucose levels rise, and glucose-deprived tissues trigger an increase in the appetite. Insulin resistance however occurs causing a flood of insulin in an attempt to slow the release of hepatic glucose. High glucose levels produce an osmotic effect and give rise to polyuria. The impending fluid imbalance produces polydipsia (Guthrie & Guthrie, 1997; McCance & Heuther, 1998; Watkins, 1998). The other common early warning signs of hyperglycemia include increased infections, with a decreased healing ability, fatigue, irritability, blurred vision, paresthesia, and sexual dysfunction (McCance & Heuther, 1998). Chronic hyperglycemia is associated with long-term dysfunction, damage, and failure of various organs – especially the eyes, nerves, kidneys, heart, and blood vessels (ECDCDM, 2003). Using current classifications, I will now briefly present the epidemiology of Type 1 before I focus on Type 2, which is relevant to my research.

Type 1 diabetes is caused by an autoimmune destruction of the pancreatic beta islet cells responsible for insulin production and secretion (ECDCDM, 2003). Autoimmune destruction of these islet cells can be a slow process or may occur abruptly as the result of genetic predisposition, environmental factors, or from unknown causes (Shaw et al., 2000). People with Type 1 generally require replacement insulin for survival and this type accounts for less than 10% of all cases of diabetes (ECDCDM, 2003).

### ***Pathophysiology of Type 2 Diabetes***

Type 2 diabetes is defined as a state of altered carbohydrate metabolism that can exist for many years before any symptoms occur (Capes & Anand, 2001). Type 2 diabetes is characterised by impaired insulin secretion, a higher rate of gluconeogenesis, or reduced insulin uptake in the periphery and skeletal muscle (ECDCDM, 2003; Shaw et al., 2000). People who develop Type 2 do not have antibodies in the islet cells but become resistant to utilising the insulin they produce. Insulin is needed to bring glucose



into the tissue cells of the body as a source of energy (McCance & Heuther, 1998). When tissues have reduced sensitivity, the pancreatic beta cell attempts to overcome this resistance by secreting more insulin (McCance & Heuther, 1998). Initially this compensatory action is sufficient to maintain normal blood glucose levels (Capes & Anand, 2001).

A heightened compensatory action by the beta cells may also lead to a state of hyperinsulinemia, increasing insulin resistance (McCance & Heuther, 1998). Eventually insulin secretion fails, leading to Type 2 diabetes. There is now a great deal of evidence that insulin resistance can have a number of other significant effects on the body and these include elevation of lower density lipoproteins (LDL), depression of higher density lipoproteins (HDL), a tendency to hypertension, and obesity. These symptoms are known as 'Syndrome X' or 'Metabolic Syndrome' and are more overt than Type 2 diabetes. Whilst Type 2 diabetes is associated with non-insulin dependence, insulin may be required in the later stages of the disorder (Colman et al., 1999).

### ***The Aetiology of Type 2 Diabetes***

The aetiology of Type 2 is a complex interaction between genetic predisposition and environmental influences that give rise to insulin resistance and/or abnormal insulin secretion (Capes & Anand, 2001; Shaw et al., 2000). While the genetics of Type 2 are complex and not clearly defined, there is strong evidence to suggest family history and heritability of a defect leading to insulin resistance (Capes & Anand, 2001; Shaw et al., 2000).

The primary environmental influence related to Type 2 is thought to be our modern Western civilisation and the rapid transition from an agriculturally based, hunter-gatherer lifestyle to one that is more sedentary (Capes & Anand, 2001). Sedentary lifestyles, coupled with high energy processed foods, increased caloric intake, and

decreased caloric expenditure, are environmental causes that lead to obesity (Capes & Anand, 2001; Harris, Petrella, & Leadbetter, 2003). Obesity plays a large role in the pathogenesis of Type 2 diabetes as it contributes to insulin resistance, the deterioration in glucose tolerance, and hyperinsulinemia (Harris & Zinman, 2000).

### ***Risk Factors***

The American Diabetes Association (2004a) has recently published a number of risk factors for developing Type 2 diabetes. They include a family history of Type 2 diabetes and being a member of certain ethnic/racial groups, namely Native Americans, African Americans, Hispanic American, Asians and South Pacific Islanders. The risk of developing Type 2 diabetes also increases with age, lack of physical exercise, and obesity. Other identified factors are that Type 2 diabetes occurs more frequently in women with a prior history of gestational diabetes or polycystic ovary syndrome. South Pacific Islanders have been identified as more likely to have a family history of diabetes as well as the other characteristics that put them at high risk to develop Type 2 diabetes in adolescence or early adulthood (American Diabetes Association, 2004a; Ministry of Health, 2002).

### ***Prevalence of Type 2 Diabetes***

The World Health Organization estimates that more than 150 million people worldwide are affected with diabetes and this number is expected to exceed 300 million by 2025. Diabetes is now considered a global epidemic that is going to increase disability, premature mortality, and the consumption of finite health resources (Diabetes New Zealand & PricewaterhouseCoopers, 2001). Type 2 is driving the epidemic with between 80% and 90% of people affected by this disorder (Capes & Anand, 2001; Diabetes New Zealand & PricewaterhouseCoopers, 2001; King et al., 1998).

There are very high prevalence rates of Type 2 diabetes in communities that have experienced rapid changes in their energy consumption and physical activity patterns, and who have replaced a traditional lifestyle with an urban lifestyle (Harris et al., 2003; Harris & Zinman, 2000). The information in the following section is derived from Capes & Anand, (2001) who report that the Pima and Papago Indians of Arizona (50%), the Micronesian Naurans (41%), and the Oji-Cree Aborigines of Northern Canada (26%) all have a high prevalence rate. Prevalence is also high among South Asian migrants, Chinese migrants living in Mauritius, and the Arab populations living in the Middle East.

There is a reportedly moderate prevalent rate of 5–10% among people of European origin who live in Europe and North America, the people of Tunisia, and Thailand. Prevalence rates of less than 3% were reported in traditional communities that were the least industrialised, such as those in rural China, Sub-Saharan Africa, and rural India. The association of increased urbanisation and rapid change from a traditional lifestyle is a serious and increasing problem for Australian Aborigines who have a prevalence rate of 24% compared to the prevalence rate of 2–3% for Australian Caucasians (Capes & Anand, 2001).

While diabetes prevalence doubled in many Caucasian populations during the 1980s, its prevalence increased more dramatically for Pacific Islanders (King et al., 1998; Wahlqvist, 2001). In Polynesia the prevalence rates of diabetes have reached upward of 40% posing serious problems for the Nauruans and affecting 15% of the Tongan population with a suggested 80% that still remain undiagnosed (Colagiuri et al., 2002).

A national survey of diabetes conducted in 1980 identified that 15% of Indo-Fijians and 7% of indigenous Fijians were affected with diabetes (Ram et al., 1982). Hospital

admission cases of diabetes in Fiji from 1952 to 1982 also showed an increase in the incidence and prevalence of diabetes (Lako, 2001). A national nutrition survey of ethnic Fijians in 1993, aimed to show a relationship between Western dietary trends and numbers of people with self-reported diabetes, found a 433% increase from a similar survey conducted in 1965. This increase is thought to be associated with the deviation from traditional foods, with Western influences in dietary patterns, and the influence of urbanisation upon physical activity (Lako, 2001). Whilst there is no more recent data since Lako's historical (1993) report about diabetes in the Fijian population, there is considerable evidence from reviewed literature that there is a dramatic increase in prevalence amongst Pacific Island people generally.

### ***Pacific Islanders and Type 2 Diabetes in New Zealand***

This study is concerned with the management of Type 2 diabetes in Part-Europeans from Fiji. In New Zealand Part-Europeans have melted into the conglomerate mixture of all Pacific peoples and are referred to as Pacific Islanders. Consequently there are no known statistics of Part-Europeans with diabetes in New Zealand. There are, however, statistics on Pacific Islanders in New Zealand and this information is derived from a study commissioned by Diabetes New Zealand (Diabetes New Zealand & PricewaterhouseCoopers, 2001).

There are an estimated 8,755 Pacific Islanders who have Type 2 diabetes in New Zealand. Whilst they currently comprise a relatively small proportion of the total known number of 100,000 people who have Type 2 diabetes in New Zealand, their numbers are projected to increase. By the year 2011, the prevalence of diabetes in New Zealand is predicted to increase by at least 39% for Europeans to approximately 101,000 people. Prevalence rates for Maori are projected to increase 90% in the next 20 years, rising to approximately 47,000 people. Pacific Islanders have a higher incidence, prevalence, and

risk than Europeans and other ethnic groups, and are facing at least an 109% increase in the next 20 years to approximately 18,000 people. This increase reflects changing demographic factors, including increased population size, changes in population age structure, and epidemiological factors such as obesity and physical inactivity (Diabetes New Zealand & PricewaterhouseCoopers, 2001). Whilst there are no figures for Part-Europeans in their homeland or in New Zealand it would be reasonable to infer from the general Pacific data that there is also a current problem for Part-Europeans.

### ***Long-Term Complications***

Because there is such a high prevalence of Type 2 diabetes among Pacific Island people at this time in history, it is clear that Part-Europeans, as a subset of that population, will also experience the serious complications of the condition. In the next section I will outline the complications of Type 2 diabetes. I will then explain the complications that Part-Europeans, who are known as Pacific peoples are susceptible to, and how these complications are likely to have an enormous impact upon their daily lives.

The complications of Type 2 diabetes can result in microvascular (small blood vessels) and macrovascular (large blood vessels) damage. The sequelae are long-term dysfunction and damage, due to reduced blood, and therefore oxygen supply especially to the eyes, nerve, kidneys, and heart (Tuch, Dunlop, & Proietto, 2000). The risk for developing these complications increases with the length of time a person has diabetes and with a poorer level of glycemic control.

Microvascular complications include: visual difficulties progressing to retinopathy which can lead to blindness; neuropathy that affects the peripheral and autonomic nerves and damages the pelvic area, sexual function, and legs; and nephropathy affecting the kidneys, which is the leading cause of end-stage renal failure.

Macrovascular complications are caused by atherosclerosis reducing the blood flow, which can lead to angina, myocardial infarction, cerebrovascular accidents, and amputations.

Research indicates that Pacific Islanders are more likely than Europeans to develop Type 2 diabetes in their adolescence or early adulthood (Simmons, 1999). Furthermore, Simmons (1999) reports that at least one-third will not be diagnosed until they are in their forties and are also less likely to have good control. The long gaps of ten or twenty years before diagnosis, combined with poor control and management, are indications that Pacific Islanders are more likely to experience the long-term complications at an earlier age than Europeans (Simmons, 1999). Pacific Islanders are also more susceptible to blindness and cataracts and are more likely to experience renal failure in comparison to Europeans (Diabetes New Zealand & PricewaterhouseCoopers, 2001; Simmons, 1996). There is a prevalence of at least 20–30% of hypertension in Pacific Islanders with an increased likelihood of stroke. Peripheral vascular disease, coupled with neuropathy, is the leading cause of toe or lower limb amputations in Pacific Islanders. Pacific Islanders are amongst the highest risk groups most susceptible to coronary heart disease and to sudden early death (Diabetes New Zealand & PricewaterhouseCoopers, 2001). The long-term complications pose the likelihood of serious disruptions to lifestyle and wellbeing, employment options, psychosocial adjustment related to disability, and substantial healthcare expenses.

The New Zealand health system spends \$170 million a year related to the incidence, morbidity, and mortality of diabetes, and this is predicted to rise to \$1 billion by 2021 (Drury & Cutfield, 2000; Ministry of Health, 2002). The prevalence of diabetes in Maori and Pacific Islanders has prompted particular research projects and initiatives by the Ministry of Health and New Zealand Health Research Council (Thornley, Tobias, &

Bonne, 2001; Diabetes New Zealand, 2001) aimed at early intervention and effective self-management (Diabetes New Zealand & PricewaterhouseCoopers, 2001).

Part-Europeans who have Type 2 diabetes need specialist ongoing education and screening for complications similar to that of any other person with diabetes. They also need diabetes specialists for blood pressure and glycemic control assessments, and regular support and advice for adjustments to their daily regimen (Guthrie & Guthrie, 1997; Hunt, 2001a). The following paragraphs provide information on the range of services that are available for people who have Type 2 diabetes in New Zealand and the accessibility of these services for Part-Europeans who are included in the category of Pacific Islanders in New Zealand. Due to limited published research on the availability and access of professional diabetes services in New Zealand, all the information is drawn from the Diabetes New Zealand report (2001).

#### ***New Zealand Diabetes Services***

In New Zealand, public hospitals provide an interdisciplinary approach to diabetes education and case management. Diabetologists, diabetes nurse educators, dietitians, optometrists, ophthalmologists, and podiatrists provide specialist care. In addition there are regional diabetes centres that undertake the coordination and delivery of ongoing management for individuals.

Another organisation that plays an active role in assisting members with day-to-day management is Diabetes New Zealand. Diabetes New Zealand is a consumer-based voluntary organisation with established local diabetes societies that supply medical, nutritional, and educational materials. Diabetes New Zealand also supports research in the treatment, prevention, and cure of diabetes and plays an active role in increasing the general public's awareness of the disorder (Diabetes New Zealand & PricewaterhouseCoopers, 2001).

Whilst there is clear evidence that ongoing education and support is needed to assist with different aspects of diabetes management, this is not currently provided in New Zealand as an entitlement but rather on an 'as needed' basis. A GP referral is required to access diabetes services, and in New Zealand the large gaps between entitlement and access to services are far greater than in Australia, UK, or the United States. This is due to the limited availability of diabetologists, dietitians, podiatrists, specialist clinicians such as renal physicians, and surgeons. There is also a shortage of ophthalmologists and eye screening services are inadequately resourced (Diabetes New Zealand & PricewaterhouseCoopers, 2001).

Once a person is diagnosed and the appropriate education and lifestyle management regimen is established, there are few disorders that demand as much self-involvement in management as diabetes. This study focuses on the self-managing experience of Part-Europeans with Type 2 diabetes and in the following section I present literature related to self-management and offer a definition for this study.

### ***Self-Managing Statement for This Study***

Whilst there is substantive literature espousing the belief that self-management is the cornerstone of overall diabetes management (Guthrie & Guthrie, 1997; Olson, 2000), a thorough search of the available literature failed to find a definitive statement to that end. Literature related to self-management reveals a focus on three main topics. These topics are levels and patterns of self-management (Clement, 1995), correlates of self-management, and interventions designed to enhance self-management (Eakin, Bull, Glasgow, & Mason, 2002). There are also definitions that classify diabetes management in terms of medically managed behaviour performed under the directives of healthcare professionals (Donovan, 1995; Hunt, 2001a; Saudek, 2002; Wikblad, 1991). Medically managed behaviour requires people to comply with medical instructions, and has given



rise to compliance literature concerning attitudes and health belief models (Speight & Bradley, 2001). These models measure outcomes of knowledge transference from the health professional to the patient (Chapple, 1999; Wikblad, 1991). This study does not focus on medically managed behaviour but on a partnership approach with healthcare professionals, because it is exploring how the participants self-manage.

From the review of literature, the definition of self-management created for this study is ‘self-care actions that are undertaken by people in the interest of restoring or promoting their health without direct formal medical supervision’ (Barlow, Wright, Sheasby, Turner, & Hainsworth, 2002; Dean, 1989). This definition supports the belief that diabetes management requires people to be active participants in self-care actions rather than passive recipients. It thus shifts the traditional medical model of control and decision making to the person as the problem solver and prime decision maker (Barlow et al., 2002; Chapple, 1999).

The demands of a new diet, insulin injections, and blood glucose tests several times a day are just some of the tasks that need self-management (Guthrie & Guthrie, 1997; Ruggiero, Glasgow, Dryfoos, & Rossi, 1997). In the first part of the next section I take a closer look at the literature related to the management of Type 2 diabetes, including conventional pharmacologic medicine.

### **Self-Management Activities Required for Type 2 Diabetes**

Due to the serious nature of diabetes an extraordinary level of attention is required from the person who has this disorder to apply treatment recommendations in the context of his or her everyday life (Guthrie & Guthrie, 1997). Diabetes management activities include blood glucose self-monitoring (BGSM), adherence to pharmacologic therapies, and lifestyle changes (Piette & Glasgow, 2001). Other management activities include daily vigilance for the symptoms of hyperglycemia and hypoglycemia as well as

for changes in visual acuity or the development of foot ulcers (Piette & Glasgow, 2001). Also incorporated into good diabetes management is knowing when to ask for assistance from a primary care provider (Saudek, 2002). The following paragraphs outline in more detail the management activities that need to be part of routine self-care behaviours.

### ***Blood Glucose Self-Monitoring***

After education and support from the healthcare team, a person with Type 2 diabetes is expected to learn, through blood glucose self monitoring (BGSM), how their body responds to certain foods and what helps their blood glucose levels to normalise (Guthrie & Guthrie, 1997). BGSM is essential to improve glycemic control (Piette & Glasgow, 2001). Glycemic control is essential to minimise long-term complications of hyperglycemia that could impact on the eyes, cardiovascular, and renal systems (Cheng & Zinman, 2001; Rubin & Peyrot, 1999). BGSM gives responsibility for decision making and problem solving to the person with diabetes for adjustment of medication, diet, and exercise regimes to maintain near-normal levels of blood glucose (Guthrie & Guthrie, 1997).

Numerous other daily decisions that are critical to glycemic control need to be managed. These decisions revolve around diet, physical activity, oral medications, or insulin injections. These are addressed in the following paragraphs concerning lifestyle changes and conventional pharmacologic treatment.

### ***Lifestyle Changes***

Lifestyle changes related to dietary and exercise behaviours are essential aspects of management and the most basic part of daily decision making for people who have Type 2 diabetes. For new onset Type 2 diabetes, in which symptoms are minimal, the first treatment option is a trial of dietary modifications, weight loss, and exercise

(Kligler & Lynch, 2003). Consultation with a nutritionist qualified to advise on exercise regimens along with dietary modification, should be part of this strategy. Although there is no specific diabetic diet that has been conclusively determined to be effective, a nutritious meal plan that supplies all the essential calories and nutrients is recommended (Goguen & Leiter, 2001; Kligler & Lynch, 2003).

Until recently, dietary recommendations were to avoid sucrose-sweetened foods in the mistaken belief that sugar would cause blood glucose levels to rise more rapidly. In line with recent findings, the ADA (American Diabetes Association, 2004b) has made the 'no sugar' rule obsolete. The general recommendation is to increase fibre and whole grains and to increase monounsaturated fats as a component of total fat intake (Goguen & Leiter, 2001; Kligler & Lynch, 2003). For people with Type 2 diabetes the emphasis is on reducing calories to meet the required goal for glucose, lipid, and blood pressure reduction (Goguen & Leiter, 2001; Kligler & Lynch, 2003). For some people who are non-insulin dependant with Type 2 diabetes this may be all that is needed to achieve optimum glycemic control at less than 7.0mmol/L, thereby making it possible to eliminate all other forms of treatment (Goguen & Leiter, 2001; Kligler & Lynch, 2003).

### ***Management of Hypoglycemia***

Hypoglycemia, occurs when blood glucose levels drop below 2.5mmol/L but in some people may occur between 3 and 4mmol/L (Tuch et al., 2000). Hypoglycemia – or insulin reaction – is caused by an overdose of insulin or oral hypoglycemic agents, too little intake of food, too much exercise, or alcohol intake without a concurrent adjustment of food or insulin (Guthrie & Guthrie, 1997; White, Sherman, & DiNubile, 1999). Numerous daily management decisions, therefore, need to be made around meal plans, exercise, rest, and oral agents or insulin intake to prevent hypoglycemia (Guthrie & Guthrie, 1997; White et al., 1999).

Classic symptoms of hypoglycemia may vary in individuals and are activated by the release of counter-regulatory hormones. These hormones include cortisol, adrenaline, noradrenaline, and growth hormone all of which promote the generation of glucose from glycogen and amino acids – processes termed glycogenolysis and gluconeogenesis. The classic early signs and symptoms of sweating, shakiness, palpitations, pallor, and a feeling of nervousness and anxiety are due to the secretion of adrenaline. If the person does not eat, blood glucose levels will continue to fall, accompanied by weakness, severe headache, double vision, hunger, and abdominal pain. Because the brain is a heavy consumer of glucose there is also an alteration in intellectual functioning and mood changes can lead to anger and aggressiveness and finally to loss of consciousness (Jerreat, 1999). This is because the skeletal and heart muscles can derive their energy from free fatty acids and ketones, whereas the brain requires a constant supply and exclusive use of glucose to function.

Hypoglycemia is particularly dangerous during sleep because autonomic counter-regulatory responses are reduced so that an initially mild episode can go undetected and become severely life threatening (Davis & Alonso, 2003). The implications of hypoglycemia are also particularly significant during times of illness or when experiencing increased physical and emotional stress. During these times food and insulin need to be carefully adjusted and maintained to meet the daily recommended supply of glucose to the brain to avoid loss of consciousness or permanent brain damage (Guthrie & Guthrie, 1997; White et al., 1999). The precise level of glucose considered 'low' remains a subject of debate, therefore to minimise the risks a person is usually advised to consider a value of less than 4mmol/L as evidence of hypoglycemia and to eat carbohydrates (White et al., 1999).

### ***Exercise***

The aim of an exercise regimen is to increase cardiorespiratory and muscle strength (Kligler & Lynch, 2003; Wallberg-Henriksson, 1992; White et al., 1999). Physical activity increases insulin sensitivity, improves glycogen storage, and allows for more efficient use of glucose in muscles (Kligler & Lynch, 2003; Wallberg-Henriksson, 1992; White et al., 1999). Four hours of exercise per week is the general target, therefore walking, jogging, swimming, aerobics, and circuit-resistance training are generally recommended. Other work-related physical activities like housework and gardening are just as effective and can be included in the overall target (Kligler & Lynch, 2003; Wallberg-Henriksson, 1992).

### ***Hygiene Care***

The feet of someone with diabetes are prone to vascular insufficiency, neuropathy, and infection following trauma. Neuropathy interferes with the perception and sensation of pain or pressure. Poor wound healing and infection must be considered and foot ulcers and amputations are common complications. Self-monitoring requires regular daily bathing and inspection of the skin to monitor the signs and symptoms of abrasions, scrapes, and sores that can develop into infections (Hunt, 2001b). Recommended self-care actions are that feet must be washed in lukewarm water and inspected daily to avoid minor injuries from turning into serious complications (Guthrie & Guthrie, 1997). Serious complications can be avoided by seeking early healthcare intervention before minor injuries develop into ulcerations and lower extremity amputations (Guthrie & Guthrie, 1997; Hunt, 2001b).

There are also self-care behaviours around oral hygiene that need to be self-monitored as part of a daily management plan for periodontal health. Regular dental

appointments are another important consideration that a person with Type 2 diabetes must factor into the overall management plan.

Retinopathy and cataracts are microvascular complications of diabetes that can lead to visual impairment and blindness (Begg & Schulzer, 2001). Persons with Type 2 diabetes need to maintain glycemic control to reduce the risk of these complications, they also need to organise and attend regular eye examinations. Smoking cessation is also recommended because it contributes to vascular disease and therefore exacerbates the complications.

### ***Conventional Pharmacological Treatment***

Conventional pharmacologic treatments are oral hypoglycemic agents and insulin therapy. If diagnosed with Type 2 diabetes early a person may be told to manage with dietary and lifestyle modifications. However some people may be given dietary therapy along with oral hypoglycemic agents – especially if lifestyle and dietary interventions are not sufficient (Jerreat, 1999). These oral agents are; the sulphonylureas that stimulate the release of insulin by the beta cells and increase uptake of glucose in peripheral tissues, biguanides that are anti-hyperglycemic, and alpha-glucosidase inhibitors that delay and reduce carbohydrate absorption in the small intestine (Jerreat, 1999).

If diet, exercise, and oral agents are insufficient to achieve glycemic control at less than 7.0mmol/L then insulin may be used alone as a therapy or in conjunction with hypoglycemic agents (Cheng & Zinman, 2001). The major function of insulin administration is to promote storage of ingested nutrients. Insulin can be delivered via the traditional method of syringe and needle, although this method may prove difficult without good eyesight and fine motor skills (Guthrie & Guthrie, 1997). Other methods of insulin delivery are the pen device, which is convenient and unobtrusive to carry

about. There is also a CSII, an acronym for the continuous subcutaneous insulin infusion pump. Lispro (Humalog®) is a newer insulin analogue that is rapid acting and simulates physiologic insulin secretion very effectively (Cheng & Zinman, 2001).

There are many regimes to choose from and different combinations are very often used based on the person's blood glucose levels at specific times of the day. The choice of regime is influenced by the person's lifestyle and age plus their awareness of hypoglycemia and the level of their self-management skills (Cheng & Zinman, 2001; Guthrie & Guthrie, 1997). The risks of insulin therapy for people with Type 2 diabetes are hypoglycemia and weight gain (Cheng & Zinman, 2001).

Although conventional pharmacologic medicine is the prescribing therapy of choice by healthcare providers, they have been influenced by a growing interest among the general public, researchers, and health educators in complementary and alternative medicine (CAM) (Yeh, Eisenberg, Davis, & Phillips, 2002). The nature and use of CAM therapy among persons with Type 2 diabetes and, more specifically, among Part-Europeans with Type 2 diabetes will be addressed in the following paragraphs.

### ***Complementary and Alternative Therapy***

There is a growing interest in complementary and alternative medicine (CAM) in the US population and numerous studies provide evidence of the use of CAM in treating various ailments and chronic disorders like Type 2 diabetes (D. Anderson, Shane-McWhorter, Crouch, & Anderson, 2000; Jump, Yarbrough, Kilpatrick, & Cable, 1998; Marakis, Walker, Ferris, Simpson, & Morris, 2002; Mishra & Hess, 2003; Wilkinson & Simpson, 2001; Yeh et al., 2002). CAM is used to describe diagnostic and therapeutic modalities that are an alternative to mainstream medicine (Caspi et al., 2003; Jump et al., 1998). CAM subsumes, but is not limited to, the practice of chiropractic,

acupuncture, iridology, homeopathy, hypnosis, herbal, vitamin and massage therapy, prayer, crystal, energy, colour, and spiritual healing practices (Jump et al., 1998).

The Western scientific perspective remains society's defining authority for labelling a health practice as alternative and CAM represents a shift from the medical model as the authority and dominant control system in society to that of individuals (Caspi et al., 2003).

A study commissioned by Diabetes New Zealand states that many Pacific peoples use alternative health providers as their first reference point (Diabetes New Zealand & PricewaterhouseCoopers, 2001). Little is known, however, about the nature of these alternative services or to what extent such providers form part of some Pacific people's regular care in diabetes management. There is wide acknowledgement that cultural values not only determine how people define health and illness, but how they affect how communities respond to new medicines, ideas, or technologies (Butt, 2002; Salimbene, 1999). Cultural practices and beliefs also determine what is considered worthy of treating, and whether the appropriate person to consult should be a herbalist, spiritual healer, a sorcerer, or a Western trained nurse or physician (Salimbene, 1999).

Native American, African, and Chinese healers all have methods of diagnosis and treatment that are culturally influenced. While their healing traditions may differ, they are based on beliefs about disease causing activity or behaviour and the spiritual principles that restore balance for healthy living (Cohen, 1998). Studies that provide substantial proof of the use of such healers have been conducted among Native Americans, Koreans, Vietnamese, and Mexican Americans in the United States (Buchwald, Beals, & Manson, 2000; Cohen, 1998; Poural, Lubben, Wallace, & Moon, 1999).



There is a widely held belief that traditional healers and traditional medicine were the basis of cultural practice and social behaviour in the Pacific (Finau, 1980). The use of traditional Pacific healers determined whether illness was attributed to natural or unnatural causes, in other words by a curse or by germs (Finau, 1980). Part-Europeans' social behaviour follows traditional Fijian beliefs in supernatural elements that could cause harm, and Simpson (1974) comments that 'Part-Europeans may also consult witch doctors in times of serious illness' (p.14).

In Fiji there is a resurgence of interest in traditional botany for medicinal purposes, and a number of articles and books have been published to preserve knowledge of herbs and plants purported to have healing qualities (Strathy, 2000; Weiner, 1989). There is also a growing use and knowledge of traditional healing remedies by Western trained medical nurses and physicians for the relief of pain and sickness (Spachee, 1996; Strathy, 2000; Wainimate, 1997).

With traditional remedies becoming more widely accepted, an effort has been made to encourage the drafting of legislation in Fiji that will support the formation of traditional healers' associations. The aim of this legislation is to unite and adequately compensate traditional healers throughout the Pacific region for their knowledge, to promote research, to conserve traditional botanical plants, and to promote their use in a safe and effective manner (Strathy, 2000; Weiner, 1989). Part-Europeans have great faith in Fijian traditional remedies and healing practices and often incorporate these into their self-care, in spite of the lack of recognition of the efficacy of such treatments by the medical profession.

Recognising the barriers to self-care management of diabetes is important, given how central it is to the successful management of Type 2 diabetes. In the following

paragraphs I consider studies that have identified specific barriers for ethnic minority groups and the limited research around barriers for Pacific Islanders.

### ***Barriers to Self-Management Care***

Pacific Islanders are not accessing diabetes services to help manage their blood sugar levels as frequently as Europeans (Diabetes New Zealand & PricewaterhouseCoopers, 2001). The barriers that prevent Pacific Islanders accessing these services include language and transportation costs. As yet the Ministry of Health does not provide funds for interpreters in mainstream services, and there is a lack of qualified Pacific Island nurse practitioners, diabetes educators, and government-funded health clinics that focus on Pacific Island people (Diabetes New Zealand & PricewaterhouseCoopers, 2001; Simmons, 1996; Simmons, Shaw, Kenealy, & Scragg, 1994).

Once a person is diagnosed with diabetes, the costs can be financially draining. There are fees for services, and other costs include monitoring equipment, eyeglasses, insulin injections, and/or tablets. A small study of four newly diagnosed Maori participants identified financial costs, transport difficulties, and culturally insensitive education programmes as challenges in their experience of Type 2 diabetes (Sadler, 2002). A study among Pacific Island and Maori people found limited services, financial costs, and conflicting advice from different care providers as major barriers to seeking care for diabetes (Simmons & Voyle, 1996).

A New Zealand survey sought to compare the knowledge and education about diabetes and provision preferences among European, Maori, and Pacific Islanders living in South Auckland. This study found that Pacific Islanders preferred accessing specialist diabetes nurse educators rather than hospital-based services and that Pacific Islanders knew less about diabetes and were least likely to have received education upon

diagnosis in comparison to Europeans (Simmons et al., 1994). According to Simmons (1996), translated educative material for the different Pacific Islands groups would not guarantee appropriate self-care for diabetes management as they are not accessing these services. Instead Simmons (1999) advocates for important aspects of cultural communication, which should include early identification of a person's ethnic background and their established cultural conceptions of health and illness. The core element of trust was identified as fundamental to doctor-patient relationships to allow disclosure of cultural beliefs in traditional medicine, level of knowledge, and psychosocial aspects of non-compliance in treatment plans. Simmons' (1999) recommendations are to also include the extended family as part of the treatment programme and to allow for financial constraints.

An open interview study in Madrid sought the perspectives of people with Type 2 diabetes on their relationship with their primary healthcare provider. Although this study did not expressly seek barriers or management perspectives, the participants repeatedly expressed that trust in a care provider was the core element that could enhance adherence to therapy (Bolanos & Sarria-Santamera, 2003). Embodied in that trust, and valued as vital to the provider-patient relationship, were the key communication elements of empathy, respect, and warmth. The ability to communicate healthcare information by listening, emphasising, exploring, understanding, and explaining were considered the foundation for a more effective provider-patient relationship that could make possible other forms of interaction, such as motivating the desire to participate in treatment and decision making (Bolanos & Sarria-Santamera, 2003). The findings from this Spanish study are similar to Simmons' (1996) study, which stressed the need for effective communication and a trusting relationship between doctors and Pacific Island peoples.

In addition to the Spanish study, other studies support the New Zealand findings that finance and transportation are barriers to effective care and self-managing behaviour for Pacific Island people in New Zealand. A focus group study of 42 Latino women with Type 2 diabetes reported pressure to put the needs of their families before their own needs for self-managing. Making dietary adjustments were difficult when they conflicted with the dietary needs and desires of the family (Anderson, Goddard, Garcia, Guzman, & Vasquez, 1998). American studies found limited financial resources were barriers to self-management among racial and ethnic minority community groups of lower socio-economic status (Robbins, Vaccarino, Zhang, & Kasl, 2001). Other identified barriers in studies among racial and ethnic minority groups in America were socio-cultural beliefs mitigating against taking on a greater role in self-care, limited access to transportation, multiple care-taking roles, limited access to childcare, and increased prevalence of mental health and substance abuse problems (Eakin et al., 2002).

The management of diabetes poses considerable difficulties given that it is often asymptomatic and has a nature of inexorable progression and fluctuations in metabolic control. Management involves effort and sacrifice with no apparent immediate benefits for the person with Type 2 diabetes. There are barriers that make adherence to treatment recommendations difficult and these barriers are often related to lifestyle, education, and psychological and environmental factors.

## **Summary**

This chapter reviews literature relevant to diabetes with special emphasis on information relevant to Pacific Islanders. The pathophysiology of Type 2 diabetes is included as well as its aetiology, risks, and worldwide prevalence. The long-term complications that can arise from Type 2 diabetes are examined. Services provided in New Zealand for people with diabetes have been reviewed. A statement of self-management for this study was evolved from the available literature, followed by a comprehensive review of literature relevant to self-management for Type 2 diabetes. Because Pacific Islanders have a world view of health and illness that integrates non-conventional medicine and traditional healing practices, a review of such practices is provided. This chapter concludes with the known barriers to self-management.

## **CHAPTER THREE:RESEARCH METHODOLOGY AND METHODS**

---

### **Introduction**

This qualitative study is guided by symbolic interactionism and the methodology of grounded theory. In this chapter I present an overview of qualitative research and grounded theory and its suitability for this study. This is followed by an outline of the main features of symbolic interactionism and how this philosophy underpins and guides the methodology of grounded theory which informed this study. Grounded theory methodology will be described and then followed by descriptions of the methods used to recruit and access the participants, and the processes of data collection and analysis. The chapter concludes with a discussion of ethical issues and rigour.

### **Qualitative Research and Grounded Theory**

Few published studies have considered Pacific Island people's experience of self-managing diabetes and none have given voice to Part-Europeans' self-management experiences. A literature review of similar ethnic or racial minorities revealed that most studies followed quantitative methodologies to evaluate programs and initiatives that had been delivered. These quantitative research studies are situated within the world view known as 'empirical positivism', within which it is assumed that mechanisms, organisms, causes, and effects can be positively known, observed, or understood through objective observation and quantification (Holloway & Wheeler, 2002).

There are three reasons for choosing the qualitative research methodology of grounded theory for this study. The first reason is the inadequacy of positivist quantitative research to identify and explain social psychological processes such as those that Part-Europeans develop to self manage Type 2 diabetes, or to consider the social and cultural environment within which these processes occur. My understanding

is that when seeking to understand human behaviour such as diabetes management, as it occurs in a context, the positivist or quantitative research approach would be inadequate to capture and interpret the emotions associated with the diagnosis. Nor could such an approach capture the meanings, desires, motivations, and actions associated with the everyday management of diabetes. According to Strauss and Corbin (1998) qualitative research studies are characterised by seeking for the meaning or nature of experience by using methods of inquiry that explore, describe, and interpret human social problems within a natural context, and with interaction between the researcher and participants (Rossman & Rallis, 1998; Strauss & Corbin, 1998). This is in line with the aim of this research and the aim of grounded theory which is to develop a well grounded theory that describes, explains, interprets, and predicts the phenomenon of interest (Dey, 1999).

The second reason is the compatibility of qualitative research and grounded theory with the role of the nurse. My choice of qualitative inquiry was directed by the nature of my profession, which is to deliver primary healthcare and teach people to live with and manage their diseases within their own lifestyles. Nurses are at the very forefront of integrated health services for diabetes care and have a holistic role to ensure that persons with diabetes are knowledgeable and willing managers of their own care. Nurses recognise that people play an active role in shaping the worlds in which they live. The grounded theory researcher attempts to interpret participants' stories so as to explain how people structure and give meaning to their everyday lives, linking together patterns and relationships for the purpose of explaining the social process (Morse & Field, 1995; Durham, 1999).

The third reason is the need for in-depth information. To understand, identify, and explain the basic social and psychological processes involved in managing the

phenomenon from the perspective of Part-Europeans in their natural social and cultural context requires in-depth information. The in-depth information is required in order to interpret their perspective accurately. Crotty (1998) endorses the view that in seeking to understand human behaviours within a natural setting and from the participants' point of view, qualitative research has the ability to gain in-depth information that may be difficult to convey quantitatively. In grounded theory the researcher seeks to investigate and process questions and investigate interactions, behaviours, and experiences in a social context as well as individuals' perceptions and thoughts about them (Chenitz & Swanson; Glaser & Strauss, 1967; Holloway & Wheeler, 1996; Milliken & Schreiber, 2001).

After establishing that the aims and objectives of this study required a qualitative perspective, the choice of a methodology led me to grounded theory and the philosophy of symbolic interactionism. I present aspects of this philosophy in the following section.

### ***Symbolic Interactionism***

The following paragraphs describe the epistemology, the views about the theory, and nature of knowledge that are involved in the theoretical perspective of symbolic interactionism which, in turn, underpins the methodology of grounded theory.

Grounded theory is located within the interpretive paradigm, informed by a constructionist epistemology. The constructionist epistemology is that meaning is 'constructed' – there can be no objective truth or knowledge and meaning is derived from a social context to explain human reality (Crotty, 1998). The assumption is that humans live in a world of social objects or symbols. We understand and act toward our environment through interaction with others, according to the meanings these symbols have for us. These meanings arise out of social interaction and are formed and reformed in an interpretive process (Charon, 1998).



The research method of grounded theory was developed for the purpose of studying social phenomena from the perspective of symbolic interactionism, which is based on constructionist epistemology (Glaser & Strauss, 1967; Bowers, 1998). Symbolic interactionism has its roots in the field of social psychology, and the American philosopher George Herbert Mead's (1863-1931) formulations are considered to be the classic view of symbolic interactionism (Charon, 1998). Mead was influenced by the intellectual traditions of pragmatism and psychological behaviourism and adopted from the pragmatists three important themes that were to influence the philosophy of symbolic interactionism: a focus on the interaction between actors and the social world; a view of both actors and the social world as dynamic processes; and the centrality of actors' ability to interpret the social world (Charon, 1998). The following paragraphs draw on Charon's (1998) five core ideas of symbolic interactionism, showing the influence of pragmatism and how symbolic interactionism is able to provide an appropriate theoretical framework for this study.

First, symbolic interaction is concerned with the nature of society and the social interactions and activities that are an ongoing process in which people are actively involved. People's interpretations of this interactive process influence the nature of their actions within wider society. This view is congruent with the process of managing diabetes as influenced by the nature of Part-Europeans' society and the wider social processes that are actively interpreted by the participants within their social and cultural contexts.

Second, although our actions are caused by ongoing social interaction with each other, action is undertaken in response to how we are thinking about and interpreting a specific situation. My assumption is that, upon diagnosis, the participants of this study would take the medical advice of managing diabetes into account. However, the act of

self-managing is an individual process that can only be undertaken according to the individual's own internal processing and interpretations of this disorder.

Third, in any situation our actions arise from the meanings we hold about that situation and a situation gains meaning only through our interpretations and definitions of it. The act of managing diabetes is closely aligned to the meanings that diabetes holds for Part-Europeans. These meanings arise from their own sociocultural group that is always in the process of interactive meaning making.

Fourth, although we act according to our current definitions of a situation, the definition gains its meaning and influence from the past. While our actions are not totally influenced by the past it is involved in our present meaning making and applied to the situation at hand. This gives credence to the nature of the research question that assumes the act of managing diabetes is a process rather than a linear event.

Finally, the fifth core idea of symbolic interactionism is that we are able to take an active part in the course of our own actions. If we are self-determining in our actions, then Part-Europeans, also, can choose to actively manage or not to manage diabetes at all, the choice is theirs as it for us all. This choice of action or inaction is determined by their definition of the situation and the attached meanings of diabetes.

Prior to constructing a social analysis, the researcher must get close to the actors concerned and establish how they define the situation, and what meanings they give to their actions. It is through this interpretive process that the meanings and social symbols of managing diabetes can be described and fully explained from the participants' own sociocultural perspective (Crotty, 1998).

Whilst participants may be influenced by the medical perceptions of managing diabetes, the act of self-managing is an individual process undertaken according to the individual's own meaning, and interpretations of this disorder. Therefore managing

diabetes will be closely aligned to the meanings that Part-Europeans ascribe to diabetes and the meanings that 'managing' hold for them. These meanings arise from their sociocultural group; their interpretations, definitions, and frames of reference within that group; and the micro and macro social processes of wider society. There is a continual process of interpretation, interaction, and meaning making as Part-Europeans move from one situation of managing to another.

The perspective of symbolic interactionism put forward by Charon (1998) is congruent with the process of managing diabetes as influenced by the nature of Part-Europeans' society and the wider social processes that are actively interpreted by the participants within their social and cultural contexts. Based on the above clarifications the qualitative approach of grounded theory within the theoretical framework of symbolic interactionism is, I believe, appropriate for this study.

### ***Grounded Theory Processes and Methods***

Grounded theory was originally developed in 1967 by Glaser and Strauss as a set of specific techniques (Glaser & Strauss, 1967; Charon, 1998). These procedures and techniques were designed to generate theory and included addressing preconceptions and existing knowledge and the selection, coding, and analysis of data (Strauss & Corbin, 1990). Glaser was originally from Columbia University where he was influenced by Lazarsfeld, a mentor and innovator of quantitative methods. Strauss, however, was primarily influenced by the writings of pragmatism and interactionism (C. Baker, Wuest, & Stern, 1992). These philosophies contributed to Strauss realising that experience is continually evolving, that people play an active role in shaping the world in which they live, and that change, process, the variability, and complexity of life are important and that there is an interrelationship among conditions, meaning, and action (Strauss & Corbin, 1990). Following this realisation, Strauss became aware of the need

to get out in the field to understand and accurately depict the values and meanings of what was going on for people in social groups. That this depiction needed to be grounded in reality produced the hallmarks of the grounded theory methodology that I will describe later in this chapter.

Following the 1967 development of grounded theory Glaser and Strauss have gone their separate ways. Strauss, in collaboration with Corbin, went on to publish *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (1990). This book has drawn some response from Glaser who views Strauss and Corbin's (1990) method as being procedural and cumbersome, forcing emergence and deviating from the original method (Glaser, 1992). However there is another perspective that calls for methodologies to be re-examined, revised, further explicated, and improved in terms of clarity and knowledge generation (Benoliel, 1996; Melia, 1996 ). Within this perspective Strauss and Corbin's (1990) text could be seen as adding to the initial (1967) method by Glaser and Strauss and has been commended for providing novice researchers and doctoral students with direction in carrying out grounded theory analysis (Benoliel, 1996; Melia, 1996).

This study adopts the particular grounded theory research approach put forward by Strauss and Corbin (1998). Their detailed guidelines have provided for me (as a beginning researcher) an understanding of the conditions affecting the phenomena of interest and provided clarity for the analysis of data. Strauss and Corbin (1998) also provide guidelines for the microscopic examination of data, constant comparison, theoretical sampling, and the use of memos, field notes and diagrams, and a guiding paradigm to examine the phenomena of interest. These are all outlined in the following section with specific details of application for this study given under the research process heading.

### ***Generation of Theory***

The distinguishing factor between grounded theory and other qualitative research methods is the major emphasis placed on theory development, either substantive or formal (Strauss & Corbin, 1994). Formal theories address conceptual areas and can elaborate upon or modify existing theory when the phenomena is examined under several different situational contexts (Glaser, 1978; Strauss & Corbin, 1998). Substantive theories are generated from the study of a specific phenomenon in one particular contextual situation (Strauss & Corbin, 1990). The study reported in this thesis is concerned with how Part-Europeans from Fiji manage Type 2 diabetes, and is therefore a specific area of enquiry and, as such, adopts a substantive approach.

Theory is grounded and generated in the stories given by the participants of their process of managing, and their voices are the basis for the formulation of theory as the study progresses. To achieve this, grounded theory uses systematic procedures of data collection and analysis inductively derived and grounded in the data (Strauss & Corbin, 1990; Morse & Field, 1995).

### ***Constant Comparative Analysis***

Data collection in grounded theory methodology proceeds alongside the analysis. This is referred to as comparative analysis and occurs through the simultaneous collection and comparison of data (Glaser & Strauss, 1967; Strauss & Corbin, 1998). Data from initial interviews is constantly compared with data sought during subsequent interviews. The method of constant comparison guides the subsequent questioning of participants and facilitates the discovery of patterns of action and interaction between and among the participants in social settings. This allows the researcher to develop a conceptual framework that explains the scene from the actor's perspective (Milliken & Schreiber, 2001).

### ***Theoretical Sampling***

Sampling in grounded theory methodology is at first purposive, but is underpinned by the technique of theoretical sampling. Theoretical sampling occurs when participants are not all immediately recruited but are selected on the basis of their ability to elucidate the phenomena under inquiry as data emerges and further information is required to refine, elaborate, or exhaust categories to further develop and generate theory (Charmaz, 1983; Glaser & Strauss, 1967). Analysis progressively leads to more abstract levels of data analysis and theoretical sampling guides participant inclusion in the data collection process as driven by the emerging conceptual framework (Strauss & Corbin, 1998). Theoretical sampling occurs simultaneously with data analysis ensuring refinement and saturation of categories and ceases when no new data appears, at this point the categories are said to be saturated (Strauss & Corbin, 1998).

### ***The Core Category and the Basic Social Psychological Process***

The primary purpose of grounded theory is the development of theory that explains basic social psychological processes common in social life (Chenitz & Swanson, 1986; Morse & Field, 1995). The development of theory occurs around a core category and the core category is the central theme of the data around which all the other categories can be subsumed (Glaser, 1978; Strauss & Corbin, 1998). Glaser (2001) refers to ‘the main concern or relevant problem as the prime mover of action in the area of interest’ (p. 103). Thus grounded theory is a theory about how participants continually resolve their main concern represented by a core category. The continual resolving of the main concern is often, but not necessarily, a basic social psychological process (BSPP) (Glaser, 2001). A BSPP is similar to a core category, except it has to have two or more clear emergent stages that account for process, change, and movement over time (Glaser, 1978).

The question put forward for this study is, ‘What is the Part-European experience of the process of managing Type 2 diabetes?’ with the supposition that managing actions occur within the social context of Part-Europeans’ lives and reflect their reaction to the nature and experience of diabetes. This study does not look at individual responses but at a pattern of overall behaviour occurring for Part-Europeans within their social context and cultural influences. This process of managing is from their perspective and is referred to as the BSPP to account for the passing of time and changing circumstances. This grounded theory study will identify the actions and interactions that take place as Part-Europeans continuously resolve their main concern or problem in the process of managing Type 2 diabetes. The main concern is a problem shared by the participants in the study sample, but may not be articulated by them (Hutchinson, 1986). Generating a grounded theory of managing diabetes for Part-Europeans would take into account overriding behavioural patterns in the managing process as the participants continuously resolve their main concern.

In summary, within the first part of this chapter I present the major hallmarks of grounded theory methodology. These are the generation of theory, constant comparative analysis, and theoretical sampling. I believe this methodology is able to fulfil the aims for this study and address the research question. The core category and BSPP are also explained and applied to the aims of this study and the research question in anticipation that a substantive theory will be generated as the study progresses.

### **The Research Process**

This section describes the methods used in this grounded theory study, the sampling strategy, and the process of data collection and analysis. It offers consideration of ethical matters and explains how rigour was ensured. I will now provide detailed

explanations of purposive sampling, theoretical sampling, and how constant comparison was used in relation to this study.

### ***Sample Criteria***

In this study, sampling was at first purposive – in that people were selected on the basis of their ability to meet the following criteria: participants had to be Part-Europeans from Fiji; they also had to have a diagnosis of Type 2 diabetes; they had to be willing to participate in the study and to share their experience; and they also needed to be residents of New Zealand. By the time the study was completed it had involved a total of nine Part-Europeans who had met the eligibility criteria.

### ***Sample Characteristics***

All of the participants retain cultural and family ties to their country of origin, and identify as Part-Europeans from Fiji. Their ages ranged from 39 to 79 years, with a mean age of 56. Six of the participants were male and three female. Four of the participants were on insulin therapy, and three were on oral diabetic agents. I cannot provide more detail because the small size of this community would enable identification of individuals.

### ***Sampling Strategy***

Participants who met the eligibility criteria were sourced through snowballing procedures. Snowballing is a strategy that uses a social network from which people tend to have characteristics in common (LoBiondo-Wood & Haber, 1998). I approached the first participant and requested that he get in touch with others who met the eligibility criteria. Subsequent selection of participants occurred by means of referrals generated by the initial participant who networked within the Part-European community. The need to gain further information relevant to the emerging theory directed the search through theoretical sampling.



### ***Theoretical Sampling***

Strauss & Corbin (1998) explain that theoretical sampling is directed at seeking particular information around events, incidents, and happenings, and need not necessarily involve seeking particular persons. Theoretical sampling of participants requires participants to not all be immediately recruited but included according to the need to gain information around specific categories as they emerge during data analysis. Following the initial purposive sampling selection, the snowballing approach led to phone calls from four prospective female participants, all requesting immediate attention and interviews. Too much delay from point of contact to the interview dates meant that when I phoned to confirm dates and times, enthusiasm had waned. They had assumed I was no longer interested, and three female participants declined.

Losing female participants in this fashion caused me some apprehension as I had only men's experiences of the managing process and began to wonder what similarities and differences would occur for females on the basis of theoretical sampling, constant comparison, and the concepts and categories that were arising. Initially the sample and emerging categories came from interviews with six males and I had concerns related to variation of concepts around specific incidents and happenings with categories in terms of comparison between genders to achieve full theoretical saturation (Glaser, 1978).

The problem of obtaining female participants was solved when I realised that female participants were keen to tell their stories without delay and that this enthusiasm declined with the passing of time. I realised that negotiation of interview dates and times had to be carried out with sensitivity in relation to their desire to be heard immediately and the need to gain data relevant to emerging concepts that should occur reciprocally with analysis (Strauss & Corbin, 1998). Thus, I put strategies in place to ensure that any new female participants that made contact would feel heard and realise

that their experiences were as important to me as they were to them. This was done by allowing them to articulate whatever they felt was significant for them at the time they first made contact with permission to take notes which would allow me to explore their stories with more depth at a future stage. An example of this was when one participant was newly diagnosed and was trying to make sense of life events that she felt led to this diagnosis. Another participant had progressed to insulin injections and found that very hard to come to terms with.

Allowing future female participants to relate their anguish during that first contact via the phone enabled the establishment of trust necessary for another interview. As a result, by listening and sensitively questioning their experiences in relation to the emerging concepts by way of conversational telephone interviews, I was able to maintain contact for follow up interviews with them. These later interviews allowed me to explore emerging categories with more depth, based on constant comparison and maximum variation in terms of categories and dimensions.

Theoretical sampling in this study ensured appropriate variation in dimensions of age and gender, so a variation of concepts and information about particular categories could be included. This ensured that the emerging phenomena were not a male-only version of the basic social process of events and happenings. Follow up interviews were sought from participants to test the relationship and dimensions of specific categories and ceased only when no new information emerged and categories were saturated.

### ***Theoretical Questioning***

Following the constant comparative method of analysis, additional questions were prepared after each interview and questions became more focused and specific as data analysis continued and categories emerged (Strauss & Corbin, 1998). Theoretical questioning in this study involved seeking particular information around specific

categories, their relationships, and their dimensions once initial data were analysed and compared with data from a range of participants. Theoretical questioning of participants was centred around some specific categories which required further elucidation as they emerged.

### **Ethical Considerations For This Study**

I will address the ethical issues involved in planning this research. The three main principles of beneficence, respect for human dignity, and justice will be discussed as foundations for this study. Prior to this I outline the principles of cultural safety in relation to sensitivity of values, beliefs, and customs of the participants

#### ***Ethical Approval***

This study was submitted as part fulfilment for the qualification of Master of Health Science and approved by the Auckland University of Technology ethics committee, (AUTEC) (Appendix A).

Although the three ethical principles just listed are fundamental to this study I was mindful of the need to find culturally appropriate ways to ensure that these principles would be upheld in accordance with the values, beliefs, and customs of the participants. Protocols of respect – like gaining consent, and gaining entry into participants’ homes and the elicitation of data – were negotiated in culturally specific ways. ‘Consent is not so much given for a project or specific set of questions, but for the person, for their credibility’ (Smith, 1999, p. 136). Trust and credibility are initially gained through the researcher being an insider, and will need to be constantly negotiated within that insider relationship (Smith, 1999).

Although my ethnicity allowed entry as an insider, I knew that my intentions would be weighed for trustworthiness and credibility. What this means is that consent would not be given unless I could be trusted to ensure that cultural sensitivity pertaining to

Part-European cultural values, practices, and beliefs would be upheld. Cultural sensitivity is essential to the processes and protocols of beneficence, respect, and justice and maintains the safety of participants as well as the researcher. The following paragraph provides more detail of this process, incorporating the advantages and disadvantages of being an insider.

### ***Cultural Sensitivity***

As this is a study of the Part-European experience, cultural safety was maintained according to Part-European processes and protocols. It has been appropriate for this emphasis on cultural sensitivity to take priority over Treaty of Waitangi and partnership issues with Maori, although the possible relevance of these findings to Maori is discussed in Chapter Seven. The need to investigate this study in a way that was culturally acceptable to the participants and their families was facilitated by my own cultural background and familiarity with my own cultural group.

Doing fieldwork in one's own culture has several advantages (Field, 1989). My own ethnic similarities and familiarity with Part-European customary traditions of enquiry influenced entry and availability of data that might otherwise have been unforthcoming. A second advantage was my understanding of Part-European attitudes to illness and the associated customs and beliefs in relation to the use of traditional remedies. This understanding enabled a non-judgemental interviewing approach. Understanding the unique Part-European language melange was the third advantage and particularly important for understanding subtleties of emotion – used especially to express frustration, anger, or shame. Detrimental to this study would be the sharing of sensitive information portrayed in a negative light, thereby reflecting on Part-European customs and/or the informants' background and social standing in the wider community of New Zealand and in Fiji. This sensitivity has informed not only the selection and

interviewing of participants, but also the way that certain aspects of the study have been written up. The ethical principles outlined in the following paragraphs are entwined with the cultural sensitivity towards and safety of the participants throughout this study.

### ***Ethical Principle of Beneficence***

The ethical principle of beneficence protects participants from physical and psychological harm and exploitation (Polit & Hungler, 1997). I was at all times acutely aware that as an insider I would be privy to sensitive information that should not be exposed, or seen to be damaging, to the participants or the Part-European community. Exploitation can be manifestly malicious or subtle (Polit & Hungler, 1997).

Participants were reassured that any information given would not be taken out of context, nor used to identify or damage them in any way. They were informed that if there was any undue distress to them or their families, that it was my responsibility to terminate interviews and their participation in the study (Polit & Hungler, 1997). Participants were informed that the knowledge and benefits from this study would belong firstly to them, the participants, and then to Part-European people in general. Other benefits included the opportunity to be heard, to express their fears, and to talk freely and frankly about their self-perceived shortcomings in self-managing.

Participants professed no disadvantages but rather expressed that this study could only be of benefit for Part-Europeans. The reason given was that diabetes for Part-Europeans had negative cultural connotations of self-blame for the disease and had been under wraps in the Part-European community for too long. In this light they considered the study to be of importance and expressed hope that their experiences would benefit other Part-Europeans by encouraging them to seek earlier intervention.

### ***Ethical Principle of Respect for Human Dignity***

The ethical principle of respect for human dignity includes the right to self-determination and freedom from coercion (Polit & Hungler 1997). These principles were upheld through the cultural protocol of using an intermediary to access potential participants. The first participant became the intermediary who did all the networking and started the snowballing process. The intermediary is well known and respected for his voluntary work with others of the Part-European community with diabetes, and his links within the community safeguarded against coercion. The ethics committee approved of this and saw the process as non-coercive. The intermediary was given an information sheet of the study (Appendix C). The information sheet also gave researcher and supervisor contact details and emphasised that participation was voluntary with the opportunity to withdraw from the study at any time. Before the interview process began participants were asked to sign a consent form (Appendix D) and informed of time flexibility and that they could discontinue the interview at any time.

Participants were given the information sheet by the intermediary and asked to make contact with me if they wanted to participate. The informant then did not need to know who had accepted and who had declined the invitation. I also had no knowledge of who had been invited by him to take part. This process was to ensure there was no undue coercion on either of our parts. Once participants made contact, informed consent was then again reiterated by ensuring they had read about and understood the nature of the study and knew that they had the right to refuse or withdraw at any time without stating a reason.

Another important aspect of this principle is that the participants were informed that I was not interviewing them in the capacity of a nurse; therefore they were to put aside

the notion of telling me what they thought I, as a nurse, would like to hear because I was interested in whatever they wanted to tell me. I informed them that whatever they did in their everyday care around diabetes was unique to them and that I wasn't there to judge whether they were managing their life around diabetes the right way or the wrong way. I explained that there was no single right or wrong way of managing diabetes, just their way. It was not for me to have an opinion on how well they were managing.

### ***Ethical Principle of Justice***

The ethical principle of justice includes the participants' rights to privacy and fair treatment (Polit & Hungler, 1997). The right to privacy observes the basic need for participants to expect anonymity and that information be treated with the strictest of confidence. Pseudonyms were discussed with the participants before the interviews. Most participants who chose a pseudonym chose the Fijian derivative of either their own name or something similarly identifiable to other Part-Europeans. It became apparent that these pseudonyms would maintain their confidentiality with outsiders but not with other Part-Europeans. Due to the nature of the study, the small community of Part-Europeans within New Zealand, and the fact that most Part-Europeans are related either through blood ties or through marriage, it became apparent that their chosen pseudonyms would enable identification. For protection of their privacy and confidentiality I requested that I be allowed to assign them numbers when including excerpts for this study. They agreed readily, and this had no impact on my reporting.

The interview number and participant's pseudonym were left on the transcripts. The typist recruited to assist with transcription of the audiotapes signed a confidentiality agreement (Appendix E) and transcripts were rechecked against the taped audio version, pseudonyms were then eliminated, and data excerpts for inclusion in this study have participants' numbers only. Participants were given copies of transcripts and invited to

edit whatever they felt uncomfortable with. There were no additions or deletions. Quoted excerpts within this study were carefully screened to eliminate identification of the participants. All materials involved in this study were kept in a securely locked filing cabinet during the process of this study. The audiotapes will be kept according to AUTC policy for six years in a safely locked place under the control of my supervisor.

## **Method**

### ***Data Collection***

The nine participant interviews took place face-to-face and were audio taped. In following the constant comparative method of analysis, additional questions were prepared after each interview and questions became more focused and specific as data analysis continued and categories emerged (Strauss & Corbin, 1998). When specific information was required around events, incidents, and issues concerning specific relationships of categories, some participants were asked for a follow up interview. Rapport had previously been established, participants had a period of time to reflect, and it was culturally appropriate for me to collect more data. I therefore followed recommended guidelines by using gentle probing and clarification of information around specificities of time and events (Maykut & Moorhouse, 1994; Rossman & Rallis, 1998). This was for validating relationships among concepts and filling in categories that needed further refinement, and will be discussed in the data analysis section.

Three participants were re-interviewed to explore specific aspects of the emerging theory. They did not want to be taped any further; therefore these second interviews were conducted by phone with notes taken while talking. In the results I may refer to the un-taped data but all quotes are from taped interviews. Field notes were taken during and after the second telephone interviews and immediately following face-to-face



interviews. Telephone interviews were written as field notes and analysed as data (Glaser, 1978). Interview lengths ranged from 30 minutes to two hours, with the average time being 90 minutes.

Interviews were interactive and conversational as it was culturally appropriate to eliminate formality and to establish rapport. Allowing rapport to develop enhances the veracity and quality of data (Streubert & Carpenter, 1995). A question sheet was prepared for the first participant in relation to certain aspects of self-care and long-term health problems associated with diabetes (Appendix F). Feedback was sought from this first participant with regard to sensitivity of questioning. Prepared sheets of emergent themes were subsequently used in relation to theoretical questioning, establishing more information around specific categories that occurred over time to ground the theory (Appendix G). However, there was not always a strict adherence to this, as allowing participants' thoughts to unfold follows the culturally circulatory manner of relating events, and ties in also with Glaser's (2001) recommendations to allow for participants' perspectives of the phenomena to evolve. For example, I asked, 'Have you had any problems with your eyesight?' rather than asking, 'How often do you go to the ophthalmologist to get your eyes checked?' The latter type of questioning implies that getting their eyes checked is the correct process of managing their disorder.

Interviews took place at a time and place that was convenient for the participants. Most participants preferred their own home with family members present. This assisted in locating their experiences within a social context (Chamberlain, 1999). Two participants indicated a preference to be interviewed in my own home, away from their own busy extended family life with its associated noise distractions. All interviews were conducted in a culturally appropriate manner, usually around a table with food and drink and preliminary customary greetings. Enquiries around family members, friends, and

the general ‘chit chat’ around politics in Fiji, with lots of gossipy humour thrown in are greeting rituals that are perhaps not unique to Part-European culture but were necessary to establish my credibility as an insider and to gain trust and rapport.

During those greeting and settling in stages there were many occasions when the conversation naturally drifted to the health and welfare of friends and relatives and then on to their own health. Perhaps worthy of mention in relation to the gathering of data as an insider is that I did not tape during these occasions. The reasons are that it would have been very culturally unsafe and unwise to turn on a tape for formal interviewing during those preliminary greeting stages. Consequently, during the actual, taped interviews, I very often had to digress and refer participants back to information divulged in the greeting stages to gather specifics. Gauging the context of when to turn on the tape took skill, timing, and adjustment of interview questions to fit the context.

### ***Field Notes***

Field notes were documented immediately after interviewing and consisted of recorded behaviours not captured on audiotape. Areas covered were the social context of the setting, the physical environment, and my own thoughts, emotions, and theoretical insights that arose during or after the interview. Field notes also covered untaped data. Field notes are written documentation of the observations of non-verbal cues and add meaning when analysing transcriptions (Rossman & Rallis 1998; Maykut & Morehouse, 1994). These field notes were handwritten on prepared forms and analysed along with other data (Appendix H). Audiotapes were played back in privacy to ensure that all data had been captured without electronic interference then immediately transcribed. Data collection was immediately followed by analysis. Further data collection was then guided by analysis, and categories were filled to validate the

evolving theory (Strauss & Corbin, 1998). The following paragraphs take a closer look at this process.

### ***Data Analysis Overview and Explanation of Terms***

Transcribed data were consecutively analysed according to grounded theory methodology explicated by Strauss and Corbin (1998). This means that data generation and analyses proceeded simultaneously (Strauss & Corbin, 1998). Analysis of data began from the very first transcribed interview and proceeded simultaneously with subsequent interviews until no new categories were generated. I will broadly outline this process, and give an explanation of terms, then explain the analysis in more detail with examples. The process began by exploring similarities and differences between concepts through the constant comparison method:

A concept is a labelled phenomena, an abstract representation of an event, object, or action/interaction that a researcher identifies as being significant in the data. (Strauss & Corbin, 1998, p. 103)

This involved analysing each transcript and finding numerous concepts, then clustering those concepts into wider enveloping codes that became categories.

A category is a pool of concepts usually grouped together under more explanatory terms. The names of categories are usually derived from in vivo codes (literally, taken from the words of the participants) and have an analytical and imageric ability to depict what is going on in the data at a much higher and broader level of abstraction (Strauss & Corbin, 1998). Each category was given a title descriptor and assigned a number on a list. The analysis of each succeeding transcript was then done by comparing concepts and categories to the titles on the list then progressively honing and refining the categories by enveloping or subsuming some into others or adding new categories to the list. Constant comparative analysis was accomplished simultaneously with each successive list of categories until a final collated list was further refined and collapsed

into broader linking overarching categories with sub-categories and their properties. I then used Strauss and Corbin's (1998) paradigm to find a pattern of relationship among the categories and sub-categories of the social and psychological process. Sub-categories more closely specify a category by giving it further clarification (Strauss & Corbin, 1998).

The simplicity of the above description belies the open coding, axial coding, and selective coding procedures that were necessary in the refining, linking, and conceptualising of categories before a list could be refined and honed down. Although these are separate coding procedures, there was movement back and forth between these procedures throughout the data analyses (Strauss & Corbin, 1998). The next paragraphs examine these procedures in detail by using an example from the study. The following table illustrates coding identification as well as abbreviations used in this study.

### ***Coding Identification***

*Table 1: Key to Coding Identification*

<b>Categories</b>	<b>Bold font 12</b>
<i>Sub-categories</i>	<b><i>Bold italicised font 12</i></b>
Codes	Title Case Not Bolded or Italicised font 12
<i>Concepts/Properties</i>	<i>lowercase italicised not bold font 12</i>
<b>CORE CATEGORY</b>	<b>UPPER CASE BOLD FONT 12</b>
(C: 1; 33)	Participant 3: Interview 1; data segment 33 font 11

### ***Open Coding Process***

In the open coding procedure promoted by Strauss and Corbin, (1998) data is broken down into discrete parts, closely examined, and codes identified. This involves uncovering, naming, and developing concepts among the data through the process of comparative analysis. To accomplish this, each page was scanned carefully for a pattern

of thoughts, feelings and opinions, and actions and interactions of the managing process to get a feel of what was going on in the data. Segments of data were then singled out for microanalysis (line-by-line analysis) to generate initial codes that captured the characteristics and meanings of what was emerging. For example, all participants talked about how they felt when they received the diagnosis of diabetes.

During this open coding phase, phenomena like the emotion concepts were labelled as ‘initial emotions’, for example, disbelieving, disappointing, feeling nothing, worrying, not wanting to know, feeling stunned, leaving things behind, fearing injecting, losing joints, devastating, and losing all good things. These initial emotion concepts were then clustered into a wider enveloping code called Reacting To Diagnosis. The properties that were found to be conceptually similar or related in meaning were grouped under more abstract explanatory terms called categories.

I will now continue to follow the open coding process through to an explanation of how I arrived at descriptive categories. Following the recommendations of Strauss and Corbin (1990), data were constantly compared and questions like ‘why, how, in which way, how much, when, in what relation, and to whom?’ were asked of the data. This analysis enabled the code Reacting To Diagnosis to hold some of the initial emotion concepts to become dimensions and properties of a category labelled *what a difference a day makes*. This category gathered up, subsumed, and conceptualised some of the emotion concepts that were initially coded as Reacting To Diagnosis. The aim was to give the emotion concepts more explanatory power (Strauss & Corbin, 1998).

The category of *what a difference a day makes* will continue to be followed through as an example of analysis. *What a difference a day makes* was conceptualised from the words participants used following the diagnosis. The following excerpts illustrate this:

Boom one day everything was normal and then the next thing I know I've got the sugar disease and I was diabetic. (C: 1; 6)

One day I was fine and the next day it's all over. (F: 1; 2)

One day I was a \*\*\*\* and then the next thing I had diabetes all happened in one day. (D: 1; 3)

### ***Axial Coding***

According to Strauss and Corbin (1990) axial and open coding are not sequential acts but a continuous recursive process. So although I may regress during this process of explaining data analysis, I will nevertheless continue to follow through to how the category *what a difference a day makes* was axially developed in the context of causality and dimensionality. During the axial coding, questions were further asked of the data; questions such as 'under what conditions does *what a difference a day makes* happen?' and 'how and in what context does this happen?' This was a recursive process of analysis and as I continued coding this category I realised that the code Reacting To Diagnosis held other emotion concepts for which the category *what a difference a day makes* could not provide sufficient description and did not have enough explanatory power. Therefore these emotion concepts were not forced into this category but subsumed into another category called *fearing loss and change*. This open coding process resulted in the grouping of codes into descriptive categories.

To summarise this process, all of the initial emotions that the participants felt when they received the diagnosis that they had diabetes were coded as Reacting To Diagnosis. This code was then axially coded into two categories called *what a difference a day makes* and *fearing loss and change* to provide these initial categories that held the emotion concepts with more descriptive explanatory power.

The axial coding came into further play along with Strauss and Corbin's (1998) 'causal paradigm' when the code Reacting To Diagnosis became further subsumed into

a more enveloping category titled **Receiving Bad News**. This was conceptualised from an in vivo code drawn from the following excerpt:

He said you have diabetes, man; that was Bad News and I didn't want to know that I just wanted to carry on with my life. (G: 1; 2)

**Receiving Bad News** became the wider, more enveloping, category and refers to *what a difference a day makes* in the light of **Receiving Bad News**, when one day everything is normal and then the next day you're a diabetic, and you have the sugar disease, and you're *fearing loss and change*. Questions like 'why, how, in which way, how much, when?', were continuously asked of the data to make connections between the categories and to develop a model that connected all the data together (Strauss & Corbin, 1998). Therefore the categories of *what a difference a day makes* and *fearing loss and change* became subsumed into the conceptualised category of **Receiving Bad News** and were relegated into sub-categories with properties and dimensions developed from the initial emotion concepts that were first coded as Reacting To Diagnosis. Those initial emotion concepts depicted what was happening for the participants when first told of their diagnosis and although varied in dimensions and properties they arose from the initial emotions due to **Receiving Bad News**.

### ***Selective Coding***

In the selective coding process, categories were integrated then refined and organised around a central or core category. The core category of **WALKING THE LINE** represents the other categories developed from the data. The core category is defined as the central phenomena representing the main theme of the study and may be related to the other categories in a meaningful way (Strauss & Corbin, 1998). The goal of this type of analysis is to give a meaningful picture of reality in the way that it is perceived by the participants. Strauss & Corbin's (1998) coding paradigm became an especially useful theoretical tool that enabled conceptual linking and visualisation

between categories while relating sub-categories for a graphic visualisation in diagrams of the conditions, contexts, actions/interactions, strategies, and consequences of the managing process (Figures 1–6, 8). Through these processes an adequate explanation was achieved (theoretical saturation) and analysis stopped. Based on the emerging result, selective sampling of the literature was then performed (Strauss & Corbin, 1998).

The aim of grounded theory is to provide a valid account of participants' stories by obtaining a 'best fit' interpretation of data (Strauss & Corbin, 1998). When this occurred I stopped analysing further and produced a model that connected all the relevant data for each stage of the managing process with a core category representing the BSPP of how the Part-Europeans in this study managed Type 2 diabetes.

### *Strauss & Corbin's Causal Paradigm*

This study used Strauss & Corbin's (1998) causal paradigm model to facilitate the emergence of actions, interactional strategies, and consequences that occur under different conditions and various contexts. This is in line with the aims of my research as the subsequent identification of a three-stage managing process has identified the ways that Part-European people revise and deal with the managing process of diabetes through time and in changing circumstances. These identified patterns of behaviour have lead to the discovery of what is relevant and problematic for Part-Europeans in this management process, and account for the basic social psychological process involved as the participants continuously try to resolve this concern. While each stage had characteristic categories and sub-categories with their properties and dimensions, they provided the overall process of **WALKING THE LINE**. While at first the participants engage in **Carrying On** behaviours that they identify as detrimental to managing, they then engage in **Carrying On** behavioural strategies for the overall purpose of **Carrying On With Life and Living**.



The three strategies of the basic social psychological process used to continue **Carrying on with Life and Living** were labelled as follows:

Stage 1 – **Sticking with the Tried and True**,

Stage 2 – **Making Some Changes**, and

Stage 3 – **Straddling the Line**

The core category of **WALKING THE LINE** subsumes these categories, as it is the overall strategy used to continue the process of **Carrying on with Life and Living** throughout the three stages of the managing process. **WALKING THE LINE** subsumes all other categories, recurs frequently in the data, and relates meaningfully throughout all patterns of behaviour.

Table 2 presents an overview of the findings for each of the three stages of the participants' managing process. A full table for each stage of the managing process is given in each of the three findings chapters. These tables lay out the conditions and contexts under which the different categories and sub-categories arise, the actions and strategies that describe how the phenomenon was handled, and the outcome or consequence of these interactional strategies.

*Table 2: An Overview of the Major Categories and Theory of: Walking The Line*

Paradigm Component	1 <sup>st</sup> stage	2 <sup>nd</sup> stage	3 <sup>rd</sup> Stage
Causal Conditions	<b>Receiving Bad News</b>	<b>Experiencing Bad Things</b>	<b>Seeing A Bad Moon Rising</b>
Contextual Conditions	<b>Lacking Face and Form</b>	<b>Finding the Fault Line</b>	<b>Seeing Through the Looking Glass Widely</b>
Actions/Interactions	<b>Disengaging</b>	<b>Engaging with Self and Others</b>	<b>Attaching Face and Form</b>
Strategies	<b>Sticking with the Tried and True</b>	<b>Making Some Changes</b>	<b>Straddling the Line</b>
Consequences	<b>Carrying on Regardless</b>	<b>Attempting Balance in Time and Motion and Control</b>	<b>Balancing, Unbalancing, and Recovering Balance</b>

### *Diagrams and Memos*

Diagramming and memo-ing are analytic tools (Strauss & Corbin, 1998), and were used throughout the research process to store and reflect my thoughts during analysis. Memos were written extensively throughout the coding process and also aided in the axial and selective coding procedure to help clarify questions for density and integration of the categories (Appendix I). Early diagrams in the beginning stages of analysis were simple illustrations of beginning analysis during open coding and constant comparison of data from the first six interviews, and helped me clarify the relationships among concepts (Appendix J). As the process emerged, diagrams helped to sort out the different stages (Appendix K). Diagrams then became more graphic and these diagrams (Figures 1–6) are used throughout Chapters Four, Five, and Six as a means of conceptualising, then illustrating visually, the relationships among the categories and their sub-categories. These diagrams are combined in Chapter Seven to show the interrelated process of the three stages, to capture them and connect them all together visually, and conceptually to portray the participants' main concern, the core category, and the basic social and psychological process (BSPP).

The findings for this study are presented in Chapters Four, Five, and Six. **Carrying on Regardless** is the first stage of the process and is presented in Chapter Four. This is followed by the next stage of the process; **Carrying On While Attempting Balance** presented in Chapter Five. **Carrying On While Balancing, Unbalancing, and Recovering Balance** is the third stage of the process and is presented in Chapter Six. The main problem of **Carrying On With Life And Living** and the core category of **WALKING THE LINE** are addressed in Chapter Seven.

## **Rigour**

Rigour refers to the trustworthiness of the study and will be discussed using the themes of credibility, auditability, and fittingness, in relation to Part-Europeans managing diabetes within their specific socio-cultural context. Confirmability should be ensured when the above criteria have been met (LoBiondo-Wood & Haber, 1998).

Credibility is the truth of findings as judged by the participants and others with experience of the phenomena being studied (LoBiondo-Wood & Haber, 1998). Maykut and Morehouse (1994) advocate returning to the participants to gain feedback to see what does not apply and what, of significance, has been omitted (Maykut & Moorhouse, 1994).

In this project this involved returning to several of the participants to ensure that the emerging categories were accurately portrayed from their perspective. Strauss & Corbin (1998) also advocate checking the theory with participants and credibility was achieved when participants were satisfied that my interpretations closely resembled their reality of the managing process and their main concern. Participants were also invited to comment on the usefulness of the theory to enable health professionals to understand and meet their needs. Credibility was further achieved through regular supervision and from a grounded theory group that met regularly with expert grounded theory researchers. These meetings encouraged reflection of potential biases that could occur as an insider and also helped me to clarify the basis of interpretations for the emerging social and psychological process and identification of the core category as it emerged.

Auditability applies to the adequacy of information leading the reader from the research question and raw data through various steps of analysis to the interpretation of findings (Sandelowski, 1986). Memos, field notes, and a full account of the research process through all the phases are available for the scrutiny of other researchers and

readers. Verifying data in this way leaves a clear decision trail enabling other researchers to follow, therefore enabling the study to be audited (Sandelowski, 1986).

The process of this study followed the procedures for developing grounded theory by Strauss and Corbin (1998) and is logically portrayed for the reader to understand and judge accountability. As the reader understands the steps of the process and the logic of the method they are enabled to judge accountability (LoBiondo-Wood & Haber, 1998). I will continue to provide a rich detailed description of the research process that invites scrutiny of the study (Maykut & Morehouse, 1994).

Fittingness, another aspect of rigour, is the logical fit of the emergent theory with existing knowledge (Strauss & Corbin, 1998). Chapter Seven will consider convergent areas of compatibility with existing knowledge of diabetes management and other accounts of chronic illness. Areas of divergence that are unique to this study will be identified and explored. Fittingness also refers to applicability outside the study situation (LoBiondo-Wood & Haber, 1998). The sharing of knowledge gained in one context can be usefully applied to another and in this case should be made available for other indigenous communities for fittingness (Smith, 1999). I will demonstrate data ‘fit’ and describe the study in enough detail so that others can evaluate the importance for their own practice, research, and theory development (LoBiondo-Wood & Haber, 1998; Marshall & Rossman, 1999).

### ***Reflexivity***

The reflexive researcher holds an awareness of her prejudices, viewpoints, insight, or assumptions regarding the phenomenon under investigation and also suspends judgement in order to see the experience for itself (Maykut & Morehouse, 1994). I have stated my own viewpoint, assumptions, and personal biases connected to my work experience in relation to managing diabetes. My own personal values, beliefs, and

experiences as an insider have been made explicit so that the reader can judge how this may have influenced the investigation and interpretation of data (Strauss & Corbin, 1998).

The thoughts and emotions that impacted upon me throughout the process of this study led to critical awareness and a questioning of my own pre-conceived biases as a Part-European and an insider in the research process. Personal insights related to being an insider and researching within one's own cultural group have already been discussed in this thesis. It was very important to stay true to the language of the participants and not to lose the essence of the words that were unique to the patois of the participants' own unique expressions.

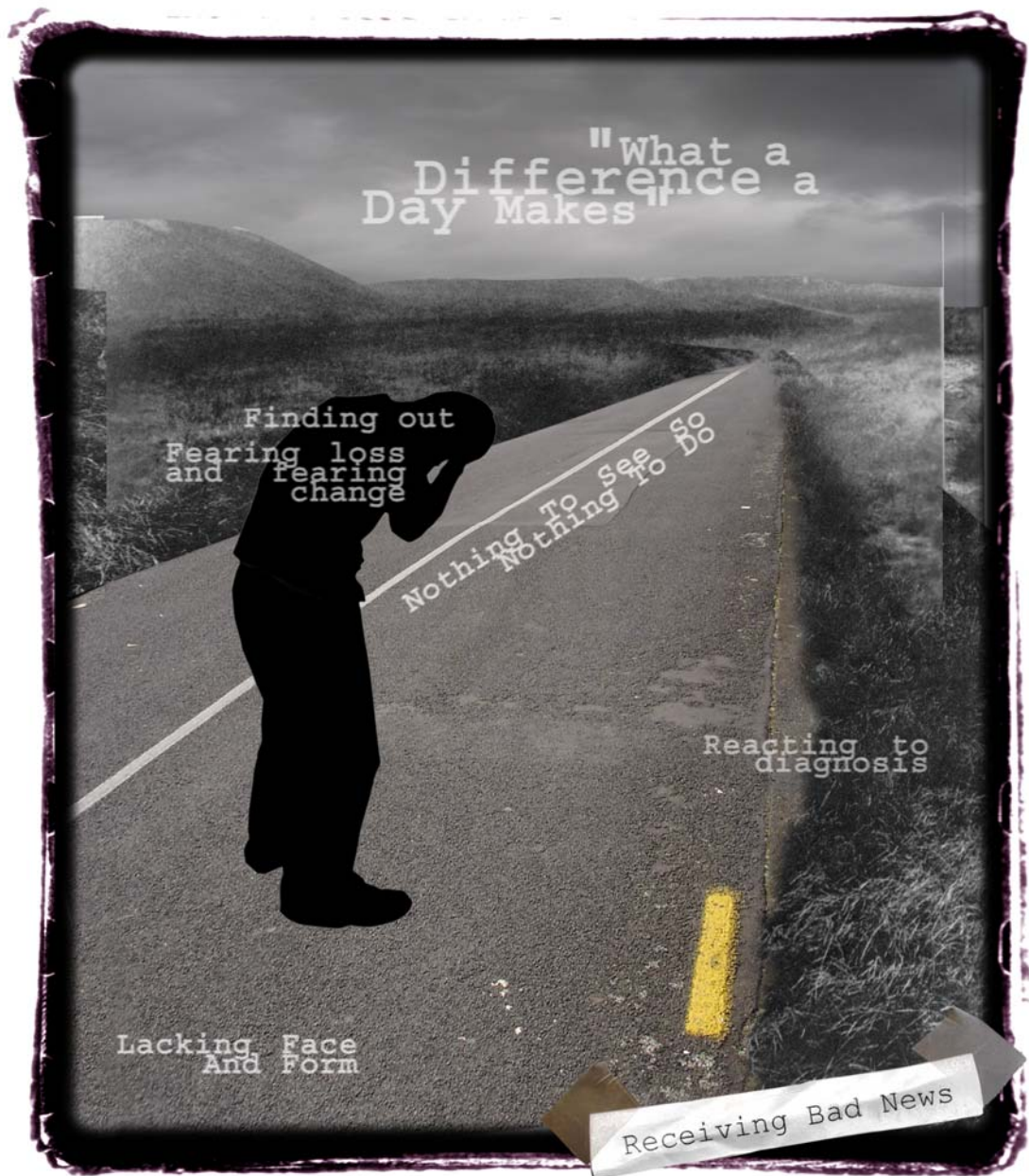
This awareness led to checking and rechecking my interpretations of categories with my supervisor to ensure that the meanings were not mine but those of the participants. Regular meetings with my supervisor and the group of grounded theory researchers encouraged reflection of potential biases that could occur as an insider and this has already been mentioned in Rigour, under Credibility. The grounded theory group consisted of beginning and expert researchers who were invaluable when I was clarifying the basis of my understanding of the participants' main concern and the subsequent conceptual model of **WALKING THE LINE** as it emerged as the BSSP. Keeping a journal and constantly memo-ing, as recommended by Strauss and Corbin (1998), were other aids to reflexivity.

## **Conclusion**

Chapter Three introduces qualitative research and grounded theory and explains why the methodology of grounded theory, based on the theoretical perspective of symbolic interactionism, is a suitable methodology for this study. The major hallmarks of grounded theory have been defined. Ethical issues of beneficence, respect for human dignity, and justice relevant to this study are fully explained. Cultural safety – pertaining to Part-European cultural values, practices, and beliefs – has been tied in with those principles. The themes of credibility, auditability, and fittingness are discussed as means of enhancing the quality, and hence the rigour, for this study. Contained within the design of this study are the sampling strategy, the process of data collection, and the analysis and application of procedures to also ensure rigour. Strauss & Corbin’s causal paradigm is illustrated to show the identification of a three-stage managing process for Part-European’s managing diabetes, their main concern, and the BSPP of **WALKING THE LINE**.

## CHAPTER FOUR: CARRYING ON REGARDLESS

---



*Figure 1: Receiving Bad News*

## Introduction

The next three chapters present the analysis of interview data from Part-European participants relating their experience of managing Type 2 diabetes. Three distinct, yet interrelated, processes emerge from this analysis to identify the basic social and psychological process for Part-Europeans managing Type 2 diabetes. An analytical model based on the premises of symbolic interactionism and adapted from Strauss and Corbin's (1990) 'causal paradigm model' was used to interpret the data during each phase of the process. The paradigm model is introduced at the beginning of each chapter as a table and data analysis will follow each horizontal row of the introductory full table in sequence with excerpts from interview data to illustrate and support the three distinct processes that emerged.

In this chapter, the first process **Carrying on Regardless** is examined in more detail, using the participants' own words. When the participants were told that they had diabetes they interpreted the diagnosis of diabetes as bad news. In this causal condition of **Receiving Bad News** participants all had emotional reactions that were categories of *what a difference a day makes* and *fearing loss and change*. Participants received the diagnosis of diabetes in the context of invisibility – there was nothing tangible to feel or to see – and the disease lacked face and form. With the disease **Lacking Face and Form** there was *nothing to see so there was nothing to do*, and participants either didn't know very much about the disease, or they didn't want to know anything about it. The actions/interactions of the participants in this context were to disengage from conventional medical care, and while **Disengaging** they used the strategy of *taking traditional medicine* to keep going about their daily affairs.

*Taking traditional medicine* is **Sticking with the Tried and True** of familiar Fijian remedies that had been used for generations before them and were tried and true



in their efficacious properties. The outcome was that time was suspended for the actions that they needed to take in order to control their blood sugar levels. Participants carried on regardless, *hitting it* and *suspending time and motion and control* of their blood sugars and other dimensions of their lives. The following table lays out the different categories and sub-categories with some of their significant concepts and properties that contain the process of **Carrying on Regardless**. **Carrying on Regardless** is also visually presented in Figures 1 and 2 in pages 68 and 89.

### Stage One Paradigm component

Table 3: Stage One: The Process of Carrying on Regardless

Paradigm component	Categories	Sub-categories	Codes	Concepts/properties
Causal Conditions	<b>Receiving Bad News</b>	<i>What a difference a day makes Fearing loss and change</i>	Reacting To Diagnosis Initial emotions	<i>Disbelieving Disappointing Feeling nothing Worrying Not wanting to know Feeling stunned Leaving things behind Fearing injecting Losing joints Devastating Losing all good things</i>
Contextual conditions	<b>Lacking Face and Form</b>	<i>Not knowing Nothing to see so nothing to do</i>	Nothing Given and Nothing Told	<i>Not thinking about it Not bothering Seeing nothing Doing nothing Killing silently Working invisibly Damaging painlessly</i>
Actions/interactions	<b>Disengaging</b>	<i>Disengaging, disconnecting, and detaching from conventional medical care</i>	Degrading, and Depersonalising Treatment	<i>Delaying treatment Lacking referral</i>
Strategies	<b>Sticking with the Tried and True</b>	<i>Using traditional remedies to keep going</i>	Minimising Harm Keeping going	<i>Detoxifying Energising Treating complication Washing out the sugars</i>
Consequence	<b>Carrying on Regardless</b>	<i>Hitting it, Suspending time and motion control</i>	Carrying On With Status Quo	<i>Not changing anything Doing the normal and familiar</i>

Throughout the findings in this chapter I will present full tables showing the process and then break them down, to discuss each section in turn. I now discuss the first segment of Stage One, as shown in Table 3.

*Table 4: Stage One: The Cause: Receiving Bad News*

Paradigm component	Categories	Sub-categories
Causal condition	<b>Receiving Bad News</b>	<i><b>What a difference a day makes Fearing loss and change</b></i>

### **The Cause: Receiving Bad News**

**Receiving Bad News** is the theoretical category that conceptualises the causal conditions of this first stage of the managing process. The causal category **Receiving Bad News** refers to the day the participants received the diagnosis that they had diabetes and its name came from an in vivo code. The following excerpt shows this:

They said my count was a bit high and that it was best to have a check out so I called back to my mate and he said ‘Oh man, Bad News man you’ve got it’. (F: I; 1)

The following excerpt shows Participant G’s reaction to **Receiving Bad News** as ‘not wanting to know’:

He said late 20’s you had diabetes, man; that was Bad News and I didn’t want to know that I just wanted to carry on with my life. (G: I; 2)

For other participants, **Receiving Bad News** of their diagnosis produced other reactions like: devastating, disbelieving, disappointing, feeling nothing, worrying, feeling stunned, leaving things behind, fearing injecting, losing joints, devastating, and losing all good things. All participants talked about their initial reaction to the diagnosis of diabetes and the meanings this held for them. These were labelled as ‘initial emotion codes’ that were found to be conceptually similar or related in meaning and were grouped under a more abstract descriptive category labelled ‘reacting to diagnosis’. As previously mentioned in Chapter Three, the emotion codes contained within this category then became properties of an enveloping category labelled ***what a difference a***

*day makes*. This category then became a sub-category of **Receiving Bad News**. Other emotion codes that did not fit into *what a difference a day makes*, were not forced into this category but were subsumed into yet another category labelled *fearing loss and change*. The aim was to give the emotion concepts more explanatory power (Strauss & Corbin, 1998).

**Receiving Bad News** became the wider, more enveloping, category and refers to *what a difference a day makes* in the light of **Receiving Bad News**, when one day everything is normal and then the next day you're a diabetic, and you have the sugar disease, and you're *fearing loss and change*. Therefore the categories of *what a difference a day makes* and *fearing loss and change* became subsumed into the theoretical category of **Receiving Bad News** and were relegated into sub-categories with properties and dimensions developed from the initial emotion codes that were first categorised as Reacting To Diagnosis. Those initial emotion codes depicted what was happening for the participants when first told of their diagnosis and although the dimensions and properties varied they arose from the initial emotions due to **Receiving Bad News**.

Table 5: Stage One: Causal Conditions sub-category: *What a difference a day makes*

Paradigm component	Categories	Sub-categories
Causal condition	<b>Receiving Bad News</b>	<i>What a difference a day makes</i> <i>Fearing loss and change</i>

***Causal Conditions sub-category: What a difference a day makes***

The sub-category labelled *what a difference a day makes* was explored in detail for relevant properties in connection with the category **Receiving Bad News** and with the first process of **Carrying on Regardless**. The sub-category of *what a difference a day makes* was conceptualised in the light of the diagnosis that produced those initial

emotive reactions, and from the words used by the participants following the diagnosis.

The following excerpt shows this:

And then you know I don't believe that we get this sugar diabetes, just only hear about it and then next thing it happens to you, it's a bit of a shock really I was a bit worried, you know one day I was fine and the next day its all over. (F: 1; 3)

What consistently came up in the interviews were reminiscences to do with the past. There was a turning point between one day when they were normal and the next day when they had diabetes, with all the changes that they had to make to their lifestyle. It was like a mini death – one day they were and the next day they were not. A song came to mind, 'What a difference a day makes'. One day life was always as it was and then 'boom', something happened. The following excerpt shows this:

I was admitted for bronchitis and boom one day everything was normal and then the next thing I know I've got the sugar disease and I was diabetic, they told me I was diabetic but that's all they said they didn't tell me anything about it. (C: 1; 10)

For most of the participants it was a life-changing event, blood tests were taken and then everything changed with the pronouncement that they had diabetes, *what a difference a day makes*:

Just like that she said 'do you know you've got diabetes?' that's how I found out it was just like that one day I \*\* and then the next thing I had diabetes all happened in one day. (D: 1; 3)

For many, grief was associated with the loss of a lifestyle for the 'way it was yesterday' and yesterday didn't seem so very far away, even though for many of the participants it was well over a decade:

Then he said I am sure you've had sugar diabetes more than 10 years ago and you have had it all that time. Man yesterday I didn't know that and I didn't want to know that now. I just wanted to carry on with my living and drinking. (G: 1; 2)

The reference to 'pretty young to be told something like that' and 'no possibility of this ever happening to me', as in the following excerpt from Participant A, shows that

these emotions are bound up in feelings and behaviours embedded in a person's construal of self and their own life script:

I would have been about 30 when I was told I had diabetes, that's pretty young to be told something like that. Diabetes. I always heard about it but thought there was no possibility of this ever happening to me. (A: 1; 32)

**Receiving Bad News** produced different emotions for each participant and these were clustered into initial emotion concepts then coded as Reacting To Diagnosis. However, for all of them it meant the difference a day makes when you've heard bad news, when one day everything is normal and then the next day you're a diabetic, and you have the sugar disease.

*Table 6: Stage One: Causal Conditions sub-category: Fearing loss and change*

Causal Condition	<b>Receiving Bad News</b>	<i>What a difference a day makes Fearing loss and change</i>
------------------	---------------------------	--

***Causal Conditions sub-category: Fearing loss and change***

***Fearing loss and change*** is the second sub-category of **Receiving Bad News**. There was a continuum of emotions labelled 'initial reactions' upon **Receiving Bad News** that ranged from 'I didn't want to know that', 'stunned', 'a bit of a shock', 'a bit worried', 'scared' through to 'I was gutted' to 'frightened' and 'devastated', and although these emotions were varied they were all in response to **Receiving Bad News**. These Initial Reactions were all accompanied by the emotions of ***fearing loss and change***. The data revealed that particular responses could not be predicted according to situations. They were not indicators of the circumstances of **Receiving Bad News**. Some participants, like Participant A in the following excerpt, made connections to the signs and symptoms of diabetes like excessive thirst and approached their doctors asking to be tested but were no better prepared for **Receiving Bad News** than the participants who had not made any connections at all.

Well the way I found I had diabetes was I have an 18 month check up and this particular time I said to my GP I said 'Would you check me for my sugars?' he said 'Why?' I said 'Well you know, they say if you drink too much water that's a sign of that' and I said 'I've been drinking a helluva lot of water these days'. (A: 1; 25)

The fear and loss associated with **Receiving Bad News** arose from personal interpretations and perceptions of threat as the following excerpt illustrates. Participant A felt devastated and scared, *fearing loss and change* and these initial emotions became attached to losing limbs and injecting:

When I was first told I was devastated to tell you the truth, diabetes, all I knew about diabetes was you had to inject yourself, there was the possibility of losing joints and all that sort of thing, and that really scared the hell out of me to be told I had diabetes. (A: 1; 1)

Asking for the diagnosis didn't prevent the emotions and initial reactions to **Receiving Bad News**. Participants who linked their symptoms to diabetes had practically made their own diagnosis beforehand but were still unprepared. J had a hunch that she may have diabetes, but having a hunch still did not prepare her any better for the diagnosis. Participants who reported having to initiate their first blood test for diabetes had been seeing the doctor for other health-related problems and expected the tests to be done as part of their overall healthcare. For example, J had to visit her doctor almost weekly for 'salt problems' as she put it when referring to her high blood pressure and fluid retention. She was frightened, fearing the loss of her hair and her body image and *not knowing* how to change anything was frightening for her:

I was going to him nearly every week for my salt problems and then taking tablets for it, while my hair was falling out and I was just losing the weight, it was dropping off me like butter, melted butter. I had a hunch so I asked him 'could it be diabetes?' 'cos I read somewhere about the losing weight, yeah I got frightened all right, I was going bald and so skinny, my hair was falling out and I didn't want to lose too much of it. They said I needed to cut down on the stress, but how can I do that? how am I gonna change anything? (J: I; 30)

Different symptoms instigated participants approaching their GPs but all participants who had made the first approach and asked to be tested were nevertheless

unprepared for **Receiving Bad News**. Participant G had an extensive family history, but was no better prepared, he was stunned and feared the loss of his eyesight at **Receiving Bad News**:

I never even thought about having it, even though it is in the family. I didn't want to lose my eyesight, get sores and stuff yeah I was, I was stunned. (G: 1; 20)

Likewise, this participant wondered if his poor wound healing was in any way connected to diabetes and on that basis made the first approach to his GP and asked to be tested:

I said 'Dr. could the slow healing of that injury be my sugars?' I felt that because of the slow healing of that injury I had, that I might possibly have diabetes. (B: 1; 3)

Because he had made the first links of his symptoms to diabetes, one would suppose that he would have been somewhat better prepared for **Receiving Bad News** when the diagnosis was made. Nevertheless he was still disappointed to be told that something he had been trying to avoid for so long had come upon him. B was emigrating and feared the many changes that would have to be made to his lifestyle:

I had been trying to avoid that and we were moving to come over here and there were already too many changes. It was the last thing I wanted, to think that I have diabetes and scared about the changes I felt disappointed to be told I had diabetes. (B: 1; 4)

The following excerpts are taken from participants who did not initiate their diagnosis. These participants had inadvertently found out, but finding out by chance produced a response similar to those participants who instigated the diagnosis. For Participant D, there was an extensive family history, that history – as the following excerpt reveals – was associated with loss and devastation due to the early deaths of family members:

I found out by fluke. I should have been prepared it's in the family but I wasn't. I was still devastated. Each one had diabetes in some form or another. There was the loss of my mother then I lost the youngest, a

girl, a sister. She died at 28 or 29 – kidney failure. She was followed by my brother who died at 41, he was also kidney, had a leg amputated and then last year another sister died, kidney failure. (D: 1; 1, 7)

Emotions were varied. For some participants, like F, there was considerable worrying, and this worrying led to putting off any changes, it was too hard to think about:

I found out by fluke and you more or less say like this is my life, and I've got to change everything, oh it's too hard I'll think about it tomorrow and just carry on. Yeah, real worried you know, wondering if there is going to be a cure for it or not you know. (F: 1; 3, 4)

Putting off making any changes had the effect of suspending the time and the motion that was required in changing patterns of behaviour and assisted in the outcome of **Carrying on Regardless** in this first stage of the managing process.

*Table 7: Stage One: The Context: Lacking Face and Form*

Paradigm component	Category	Sub-categories
Contextual conditions	<b>Lacking Face and Form</b>	<i>Not knowing</i> <i>Nothing to see so nothing to do</i>

### **The Context: Lacking Face and Form**

**Receiving Bad News** produced the medley of emotional reactions to their diagnosis in *what a difference a day makes* and *fearing loss and fearing change*. These emotional 'initial reactions' were further assisted by the contextual conditions of the disease, that is, **Lacking Face and Form**. All of the participants referred to the nature of diabetes with words like 'working invisibly', 'damaging painlessly', and 'killing silently' which conceptualise the imagery of a disease **Lacking Face and Form**. These concepts have connotations of a silent assassin without face or form that strikes under the cover of invisibility. The imagery of diabetes as an assassin comes from the words that the participants use. This is illustrated in the following excerpt:

It's something you aren't going to pick up because it has no pain symptoms, it's a silent killer that sneaks up on you like a bloody sniper so nobody picks it up or picks it off – oh you're rotting off, we going to



cut something off – and they still don't put it down to diabetes, what do they say, oh we've got to cut and let them go again, you know. But there's no pain, can't feel anything, there's nothing there to see, so what do you do huh, you don't give in, you just carry on. (F: 1; 38).

These concepts were then subsumed into the sub-categories of *not knowing* and *nothing to see so nothing to do*. *Not knowing* encapsulates the codes of Not Knowing What You Don't Know and Not Wanting To Know throughout those early days that contributed to the consequence of *suspending time and motion control*.

*Table 8: Stage One: Contextual Conditions sub-category: Not knowing*

Paradigm component	Category	Sub-categories
Contextual conditions	<b>Lacking Face And Form</b>	<i>Not knowing</i> <i>Nothing to see so nothing to do</i>

*Contextual Conditions sub-category: Not knowing*

The following excerpts illustrate the dimensions of the sub-category *not knowing* and show how this sub-category is related along a continuum to the context of the disease **Lacking Face and Form**. Some participants had very little knowledge about the requirements of managing their daily lives around diabetes:

In the early stages I didn't know anything much about it. (H: 1; 6)

Other participants who lacked knowledge were new immigrants, and were totally reliant upon their doctors for the knowledge and information that was necessary for self-managing. As they recalled those early days, the sense of grief and regret was almost palpable:

We had no knowledge about anything over here, we didn't know where else to go at the time and we had just arrived. (C: 1; 8)

Other participants also said they lacked knowledge about the disease, that there was nothing given, and they were told nothing about the diabetic services and organisations that existed in New Zealand. Participant B epitomises the trust that they had in their

doctors and said that if they knew then what they knew now they could have managed better:

When we got to NZ our GP, Dr \*, we went to visit him and he took over and we carried on with him because we thought that because he was from Fiji that we could talk freely to him. We had no knowledge about anything over here and we didn't know where else to go and we had just arrived. But he didn't give me any information about where to get the support. He didn't refer me on and we didn't know where to go at the time. We carried on with him like that with him for six years. (B: 1; 13)

As discussed in Chapter Two, people from the Pacific are likely to have a history of diabetes in their family, and the following excerpt illustrates that there is insufficient education and knowledge of this disorder in these high-risk communities. Within the context of **Lacking Face and Form** and *not knowing* anything about the disease it was easy not to think about it and not do anything. The following excerpt also shows that in the context of **Lacking Face and Form** and *not knowing*, families were not talking about it to each other:

You know, even when I was thirsty all the time I never even thought about having it, even though it is in the family I didn't know anything about it and I couldn't see anything. (G: 1; 20)

All of the participants recalled **Receiving Bad News** of their diagnosis as a significant event that stood out in their memory and they recalled the day very vividly. Yet for some, although they had seen the effects in their family, they still didn't want to know:

I never even thought about having it, even though it is in the family I really didn't want to know too much about it at the time. (D: 1; 6)

Some participants just didn't know what they didn't know in the early years of their diagnosis, while other participants reported not wanting to know anything about the disease at the time. This excerpt illustrates the sub-category *not knowing* along the continuum of not wanting to know even though there was a family history:

I thought I might get it one day because it's in the family but I really didn't want to know too much about it when they told me. (J: 1; 6)

For others, **Receiving Bad News** did not fit into the thoughts and feelings that they held about their own self-image. The 'too young to be happening to me' illustrates the misconception that it is a disease of age:

Man, I was too young, didn't want to know that, just wanted to carry on with my life. (G: 1; 2)

With the context of the disease **Lacking Face and Form**, participants lacked knowledge, didn't know anything, and didn't want to know anything:

Then he said 'I am sure you've had sugar diabetes more than 10 years ago and you have had it all that time'. Man, yesterday I didn't know that and I didn't want to know that now. I just wanted to carry on with my living and drinking. (G: 1; 2)

**Not knowing** what you don't know and not wanting to know is indicative of the properties and dimensions of **not knowing** and is illustrated in this excerpt from Participant E who talked about just waiting around because no one told him how serious it was:

And that time there I was just starting to get the symptoms and I was about 112kg, I was quite a big build for my height, eh, and I noticed the symptoms of, you know, the usual of thirsty and tired, by 3 o'clock, I have go to the bathroom about two, three times a night, and I started to notice my weight dropping and that's when I got the thing tested but I really didn't want to know. I just waited around 'cos my aunty sort of never really said how serious it was, like 'hey you better go and see the Doctor, you're really sick', No, so I just carried on. (E: 1; 23)

Table 9: Stage One: Contextual Condition sub-category: *Nothing to see so nothing to do*

Paradigm component	Category	Sub-categories
Contextual conditions	<b>Lacking Face and Form</b>	<b><i>Not knowing</i></b> <b><i>Nothing to see so nothing to do</i></b>

***Contextual Condition sub-category: Nothing to see so nothing to do***

Another sub-category of **Lacking Face and Form** was *nothing to see so nothing to do*. Participants talked about how the effects of diabetes in this first process were not showing because there were no symptoms and they had no pain. After **Receiving Bad News** there was no face or form to the diagnosis of diabetes, they felt good, there was nothing to see, so there was nothing to do:

Most people were like me they don't change anything else in their life because they feel good and I've got to keep telling them 'diabetes you know is the silent killer for the simple reason, there's no pain where you massage, it's just working there and doing the damage eh'. There's nothing you can see really visible for a long time so they do nothing about it. (A: 1; 13)

With *not knowing* and *nothing to see* within this context of **Lacking Face and Form** they got on with their normal affairs of life and living while diabetes was killing silently, working invisibly, and damaging painlessly:

It has no pain symptoms, it's a silent killer, you can't see it and you feel nothing. But it's a silent killer, a silent killer. Even now like the damage is painless, I don't feel it even now I need glasses when I read I start getting a bit blurred. (G: 1; 30)

In the early stages of their diagnosis the effects were distant threats in the absence of physical pain:

In the early days most of the time I was feeling right and didn't think too much about it. I didn't know that the sugar was slowly getting to my eyesight. (D: 1; 27)

The lack of visible effects allowed the participants to continue on with their lives without changing anything. **Carrying on Regardless** was easy within the contextual invisibility of the disease **Lacking Face and Form**:

Lucky it was in the early stages like eh, wasn't bad at all so I just carried on with everything, never changed a thing, kept working, kept drinking because the effects of diabetes did not show on me. (C: 1; 6)

Referring to ‘the sickness with no pain’ the following excerpt shows that although E was terribly thirsty, was losing weight, and had a high glucose reading, invisibility provided a measure of avoidance and minimum interruption to his daily life. Another dimension of **Lacking Face and Form** was *seeing nothing and doing nothing* thereby allowing him to **Carry On Regardless**:

I was thirsty and losing weight, so when she did my reading it was 23. But I took no notice 'cos nothing was wrong with me, no injury nothing, so I just carried on, had no cuts nothing everything was norm it's a sickness of no pain 'cos you've got no feeling eh, it's the silent killer. (E: 1; 38)

Maintaining employment was necessary for all the participants and, for some like D, this entailed a lot of wining and dining and socialising. He enjoyed it, and derived a great deal of psychological health and wellbeing from his job. The insidious nature of the disease, plus the lack of knowledge, made it easy to carry on regardless as if it did not exist:

In the early days I didn't really know too much about it and because it was not obvious and did not affect my life, I just carried on, I was playing rugby, so a lot of beers, lot of functions and working, I had a good job that was my life I enjoyed it. And because the effects of diabetes did not show on me I did not feel anything about it, so it didn't bother me although my family has a history of diabetes. (D: 1; 3, 4, 6)

Within the context of invisibility and the disease **Lacking Face and Form** there was nothing to see so there was nothing needed to do but to carry on living, loving, settling in a new country, eating, drinking, playing, and working. This was further compounded by *not knowing*, which contributed to *Suspending Time and Motion and Control*. Within the context of **Lacking Face and Form** diabetes does not intrude or obstruct everyday affairs that are part of a lifestyle. For the male participants this lifestyle included playing rugby, wining, dining, working, and chasing girls, partying, or drinking excessive amounts of alcohol. With *nothing to see* there was *nothing to do* but to carry on regardless. Not giving in to the enemy is ‘giving no ground’. Giving no

ground to the enemy and soldiering on in the face of an assassin that lacks face and form is doing what, in battle, we are expected to do, which is **Carrying on Regardless**.

*Table 10: Stage One: Actions/Interactions: Disengaging*

Paradigm component	Category	Sub-categories
Actions/interactions	<b>Disengaging</b>	<i>Disengaging, disconnecting, and detaching from conventional medical care</i>

### **Actions/Interactions: Disengaging**

During interviews participants spoke about their early interactions with healthcare providers and how they felt about doctors in terms of communication and attitudes of engagement. Participants talked about the lack of connection that they felt with their doctors and the lack of referrals to specialists and diabetic agencies. This was conceptualised as doctors **Disengaging** from treatment and care which, in turn, led the participants to reciprocally disengage and withdraw from treatment and ongoing care.

The category of **Disengaging** refers to the actions and interactions of the participants and their health providers and subsumes the sub-category of *disconnecting and detaching from conventional medical care*. This sub-category was conceptualised from the properties and dimensions contained within the categories of delaying treatment, not referring on, and degrading and depersonalising treatment which, in turn, led to participants *disconnecting and detaching from conventional medical care* during this first process of **Carrying on Regardless**. Participants disengaged from treatment and often felt that the doctors treated them in a disengaged, depersonalised way. This was sometimes due to changing doctors, sometimes to technology getting in the way, and sometimes to poor communication. The category **Disengaging** is illustrated in the following excerpt:

He had to draw a graph to show me where I was. So if that was the danger point I was just about there and that's when he said if you can control your diet now, tablets would help you stay where you are, but

that never happened. I never did it ... so I didn't always turn up for my appointments and when I did turn up he more or less said to me 'don't come back because I'm not interested in you because you're not doing what you should be doing'. (A: 1; 25)

Participant A was shown a graph by his doctor to illustrate that he was close to the danger point in the progression of his diabetes. Told that if he could control his diet and take the tablets he would be able to remain where he was on the graph, Participant A didn't follow the advice given and began **Disengaging** from appointments. Participant A epitomises the category of *disconnecting and detaching* himself from conventional medical care with the reciprocal action of his doctor *disconnecting and detaching* also.

*Table 11: Stage One: Actions/Interactions: sub-category: Disconnecting and detaching from conventional medical care*

Paradigm component	Category	Sub-categories
<b><i>Actions/interactions</i></b>	<b><i>Disengaging</i></b>	<b><i>Disconnecting, and detaching from conventional medical care</i></b>

***Actions/Interactions: sub-category: Disconnecting and detaching from conventional medical care***

The sub-category of **Disengaging** is *disconnecting and detaching from conventional medical care*. When interpreting their experiences of healthcare from treatment providers, participants reported doctors' behaviours that were *disconnecting*, **Disengaging** and *detaching*. These in turn lead participants to also disengage, detach, and disconnect from conventional medical care. Participants talked about appointments with care providers and how they felt when there didn't seem to be any connection with them as a person and how this caused many missed appointments and, for some, a disengagement from further care. The following excerpt from Participant A illustrates the feeling that participants had of being depersonalised to just a job and number on the doctor's list:

But he was more or less – 'I'm here and I've got to do the job' I was just a job and just a number sort of thing. I don't know whether he was suffering from diabetes himself because he seemed to be in another world when he was talking to me, you know. He was very tired sort of

looking; I don't know whether he was doing too much work. You know he'd sit there and talk to me and be almost falling off to sleep talking to me, I thought, 'I don't think I want to be with this bloke too long' you know. He didn't give me the confidence in him so I didn't always keep my appointments, he used to get my back up you know because of his attitude, he wasn't interested and he didn't want to be there, well that's the impression I got anyway. (A: 1; 28)

Participants talked about people in diabetic services who had a computerised list, or a regimen to follow, with the questions just ticked off without anyone really considering the psychosocial and psychological aspects of their managing process. This led some participants to feel they were getting computerised care as opposed to personalised care. The lack of face-to-face interviewing gave the perception that their doctors were disconnected and detached from them as people which contributed to those participants *disconnecting and detaching from conventional medical care*. Participant F related his experience of computerised care as opposed to personalised care in the following excerpt:

Doctors nowadays they sort of all on computers, no face-to-face, more computerised than personalised sort of thing eh, they sort of tap in there and... No face-to-face. Well now and again you have them talk to you but I think the dollar sign is too great for them eh. It's computerised more than personalised. (F: 1; 11, 16)

Other participants talked about how they lost the first contact and engagement they had with the doctor that first diagnosed their condition. Ongoing care and recommended treatment was lost when they shifted and moved to another suburb. Getting busy was detaching, and taking a long time to make contact with another treatment provider was, in effect, **Disengaging** from treatment and further care:

I remember there was one doctor he tried to put me on Metaphorman and then changed his mind and said 'No I think I'll start you off on diet' and he gave me all the pamphlets of controlling my meals. That was going back to where we lived before and when I came here that gap of three or four years from \* to here and I never saw anybody else, we shifted and I got busy and there was that gap you know where I never saw anybody. (E: 1; 27)



Another dimension of this sub-category is how communication difficulties caused participants to disengage from seeking treatment. Participant E recalls an occasion when anticipation of miscommunication prevented him from seeking treatment although he got very sick with an infection that hospitalised him immediately he arrived back in New Zealand:

The reason I didn't try and get any antibiotics when I was in Fiji was I didn't want to go to the doctors, if I had gone there I think they would have cut my leg off they probably would have recommended it, we have that problem, we have doctors there that don't speak our language eh [Fijian, English or Hindi]. They get these doctors from China or somewhere like that. (E: 1; 31)

The two participants that did not refer to their treatment as depersonalising and had good long-standing relationships with their doctors still disengaged from care:

We knew each other from back home, good mate of mine, I'm comfortable with him and can talk to him about anything. (G: 1; 3)

The following excerpt illustrates the friendship relationship where they appear to slip into a familiarity of sorts rather than a doctor-patient relationship. A friendship relationship rather than a doctor-patient relationship makes for blurred boundaries. Blurred boundaries make for blurred professional engagement and subsequent disengagement:

Dr \* is from Fiji, only what he does with me is just the tablets. He said take this and follow the instructions, yeah. He really didn't really explain to me about diabetes, but he gave me a pamphlet and he said he told me like this is very serious you can get your toe cut or you can, you know you can, go blind he didn't actually go down to detail about it or sit down and discuss it probably because I already knew him from Fiji, we were good mates, and I didn't push it. (G: 1; 35, 37)

Some participants felt that they did not have a good rapport with their doctor. Not having a good rapport for Participant D was demoralising in terms of doctor-patient engagement:

The specialist and I argue so much that I don't really have a good rapport with him. He always complained that I was a 'know all' patient.

Wife: He used to call him 'Mr Know All', it was demoralising. (D: 1; 49)

The outcome was the same for the participants who felt that their doctors were not fully engaged with caring for them as it was for the participants who felt they had good terms of engagement with their doctors:

I believe that the government just think you're worthless so won't worry too much about you so they don't have to pay retirement benefits. Hate to say it but that's what it feels like, we are no value at all to society. Well they got what they want then because I know a lot of people just like me who don't bother going to see the doctor. (F: 1; 2)

Feeling depersonalised, or degraded, also stemmed from feeling worthless and of no value to society. This feeling of valuelessness and worthlessness also led to participants

**Disengaging, disconnecting and detaching from conventional medical care.**

Table 12: Stage One: The Strategy: Sticking with the Tried and True

Paradigm component	Category	Sub-categories
Strategies	<b>Sticking with the Tried and True</b>	<i>Using traditional remedies to keep going</i>

### **The Strategy: Sticking with the Tried and True**

The strategy that participants employed, in the context of invisibility with the disease **Lacking Face and Form** and the actions/interactions of **Disengaging** by them or their doctors from conventional care, was to stick with the unconventional traditional medicine. Their main concern was **Carrying on with Life and Living**, and traditional remedies enabled 'keeping going' which is synonymous with 'carrying on'. This excerpt shows this:

The **layalaya** it always does a cleaning job in the liver, that's the one thing I believe was keeping me going in the early days 'cos I used to drink, drink everyday, it cleans you out and gets rid of the alcohol. (C: 1; 18)

The strategy that participants used in this first process of **Carrying on Regardless** was to use traditional remedies to keep going – this became enveloped into the wider conceptualised theoretical category of **Sticking with the Tried and True**.

The tried and the true is the abstract imagery of the tried and the familiar traditional Fijian medicine, derived from botanical remedies, and passed on through generations before them. Participants talked about believing in traditional remedial medicine ‘I believed in it’, and ‘it kept me going’ and when one considers how they kept going, it was through believing in the tried and the true.



*Figure 2: Sticking with the Tried and True*

Although the participants were Part-European they all followed the many Fijian customs and beliefs around traditional remedies to treat both minor complaints and serious illnesses like diabetes.

*Using traditional remedies* became a sub-category and was conceptualised into the wider category of **Sticking with the Tried and True** familiar traditional remedies that were passed on through their forefathers.

*Table 13: Stage One: Strategies: sub-category: Using traditional remedies to keep going*

Paradigm component	Category	Sub-categories
Strategies	<b>Sticking with the Tried and True</b>	<i>Using traditional remedies to keep going</i>

***Strategies: sub-category: Using traditional remedies to keep going***

The basic problem that participants had throughout their managing process was how to keep going. Although they did not all have the same reasons for using traditional remedies, they all used them to keep going in reference to maintaining their daily lives; in other words to enable **Carrying On With Life And Living**. Participants referred to using traditional remedies for ‘purifying the blood’, ‘bringing down’, or ‘washing out sugar’, or for general cleansing and fortifying the body. Concepts like ‘cleansing the liver’, ‘getting rid of alcohol’, and ‘washing out the sugar’ were concepts that depicted self-caring by detoxifying and minimising harm. Therefore these concepts became clustered into the codes of Detoxifying And Minimising Harm, and properties and dimensions of *using traditional remedies to keep going*. The properties of the code Detoxifying in relation to the dimensions of using traditional remedies arose from the participants’ words of ‘cleansing the liver’ and ‘neutralising the effects of alcohol’. This is in effect the concept of detoxifying. The additional properties with dimensions along the continuum of using traditional remedies were for supplementing, or replacing,

Western oral diabetic agents and for energising and enabling participants to keep going. Codes like Purifying, and belief words like ‘believing in it’, and ‘using to keep going’ are exemplified in the following excerpt from A:

Yeah I know people who take that Noni juice, it’s supposed to be good, Kura they call it in Fiji, some people swear by it. We have some here in the fridge; it’s bloody expensive the one from Hawaii, also the good old-fashioned layalaya that always works. \* was bringing it over, we’ve got some here, probably some in the freezer. I was taking that, I believe it kept me going, purifies the blood. (A: 1; 17)

Ophthalmologic disorders like diabetic retinopathy were also treated with traditional botanical herbs. A morning ritual for Participant B involved using the Batibitikoro leaf called Lantana for eye drops and the use of Kura and Okra for purifying the blood. Although he knew the mango leaf as the traditional Indo-Fijian remedy for diabetes yet he chose **Sticking with the Tried and True** traditional remedies that were familiar to him, like Kura, Okra, and Lantana:

For my eyes I used Batibitikoro, it’s Lantana it’s a leaf in Fiji my mother used to use, used to pound it up and put it in a cloth and used to make drops.

Wife: There’s a thing a lot of people are taking in Fiji for diabetes, Kura.

B: Or wakanone.

Wife: That’s not for diabetes that’s different. It’s Kura, yes, Kura is really good for diabetes it purifies the blood.

B: Yes drink it good for the liver brings down the sugar you know also the Mango leaf. Yes, that’s what the Indians use and they pound it.

Wife: And Okra. He used to drink that every morning. I’m sure he would have been worse without it

B: But for my eyes I used the lantana. (B: 1; 23)

Morning was the usual time for cleansing the liver, before taking breakfast, and for Participant D the properties and dimensions of taking traditional medicine were for cleansing and as a supplement to oral hypoglycemic tablets. Believing in the efficacy of its cleansing properties for washing out the sugar, he also took the traditional **layalaya** medicine as a morning ritual:

Well, those days it was about 15, 16, and he tried to talk me into having insulin, but I said no I don't want to take it. He tried to give insulin but I refused. The only thing I knew that helped was layalaya, that's the other thing, I was supplementing the diabetic tablets with the good old Fijian layalaya. That's the thing and our mango tree at home, there was a whole crop of it around the mango tree and my wife she mixed it for me every morning. I had some every morning when she mixes it. I would say without a doubt that the Fijian medicine helped. I think that it just worked like ginger because it cleans you out. It's the same family like ginger; I believe it cleans you out. Oh yeah, ginger that layalaya thing ginger, it helped. When I was in Fiji that's the greatest supplement that I believed really helped and kept me going. (D: 1; 11, 12, 13, 14)

They believed in the attributes and efficacious properties of traditional medicine passed on down from their forefathers. Taking on Western ways meant taking tablets and F recalls a time past when we all took traditional medicine for a variety of disorders:

I took our Fijian medicine at first and I felt good, but it's too hard to get it here. We all used to take it for everything eh, like head colds just pounded it up have a drink of that, man I don't even snore at night when I drink that thing. Sore throat anything, stomach if it's feeling not so good. You know the medicine we used to have when we were growing up, if we all took that then we wouldn't have this diabetes. It must be good for your liver. You know we took it for granted when we were there when we were young, like we don't really take that stuff now yah? we rather go to the doctors they've got tablets. (F: 1; 22)

Another property and dimension along the continuum of using traditional remedies was to use it for its energising effects. The following paragraph reveals this relationship to **Sticking with the Tried and True** and how this category enabled some participants to keep going about their daily affairs and so it contributed to the first process of **Carrying on Regardless**:

Well I was taking this Noni and that, that's really good. The Fijian name for Noni is Kura, I think Kura gives you a lot of energy you know and you feel like getting up in the morning and just get out there and keeps you going. (F: I; 7)

**Sticking with the Tried and True** and using traditional medicine to keep going is also doing the normal and the familiar. Although Participant E used Fijian medicine as a strategy to enable the process of carrying on with his journey, visiting relatives and

fulfilling all his other plans, he didn't believe in its efficacy. Retrospectively recalling events of his journey when he used traditional remedies he wasn't sure if it was assisting or hindering the healing process. Reverting to the old familiar ways by using Fijian leaves as an antiseptic to wash the pus from his suppurating leg wound, Participant E recalls, in hindsight, the doubts he had about their cleansing abilities. He nevertheless, at the time, reverted to the normal and the familiar and kept using the remedy to enable the process of carrying on with his journey. In effect he was doing the normal and the familiar and **Sticking with the Tried and True** to keep going about his daily affairs instead of going to a physician:

My sister was using some Fijian leaves and other stuff washing my leg, boy stink. I don't know what's it called, one leaf there it was supposed to get out the pus, I doubt it, thing never did anything. I don't know whether it helped the healing process when I was in \* they brought some leaves and squeezed it all over my leg whether it was curing or worsening I don't know. (E: 1; 32, 49)

Participants believed that traditional medicine kept them going by preserving their lifestyle and enabling them to keep going about their daily affairs. Keeping going through **Sticking with the Tried and True** was a strategy that enabled the first process of **Carrying on Regardless** and it relates meaningfully to the participants' main concern of **Carrying on with Life and Living** that occurred throughout the managing process for Part-Europeans with Type 2 diabetes.

To clarify this further, keeping going is synonymous with carrying on. Therefore the use of traditional remedies enabled them to carry on with life and with living regardless of the emotional contents and *initial reactions* contained in the code of Reacting To The Diagnosis. Reacting To The Diagnosis became contained in the sub-categories of *what a difference a day makes* and *fearing loss and fearing change*, and these sub-categories became subsumed into the causal category of **Receiving Bad News** to give this category more explanatory power. *Using traditional remedies* was the culmination



of causal conditions, context, and actions/interactions that enabled them to keep going in their daily lives and to enable the outcome of **Carrying on Regardless**.

*Table 14: Stage One: Outcome Category: Carrying on Regardless*

Paradigm component	Category	Sub-Categories
Consequence	<b>Carrying on Regardless</b>	<i>Hitting it Suspending time and motion and control</i>

### **Outcome Category: Carrying on Regardless**

Participants talked about the early days of their diagnosis and the actions and interactions related to not seeking further help or information. They were getting on with their daily affairs of settling into a new country, and they lacked knowledge of how to change things, or didn't want to change things at the time. They also talked about the invisibility of the disease and how, in that context, there was nothing to see or feel. Without tangible evidence of the disease process there was no reason to change direction and take a different turn in the road of life.

The meanings and perceptions that were attached to diabetes and their initial reactions in causal conditions shed further understanding on the decisions that were made by the participants for the outcome of **Carrying on Regardless** for this first stage of managing diabetes. Initial reactions were found to be important as they set the conditions for reacting, and reactions set the scene for the subsequent actions and interactions and strategies employed to deal with **Receiving Bad News**. The following excerpt illustrates the outcome of this first process. Despite **Receiving Bad News** participants were determined to carry on regardless throughout this first process:

When I found out I said to myself 'Every day is a gift, can't waste it'. 'It will never come back again, tomorrow is gone' I don't believe in wasting time doing nothing. My dad, I'm like my dad, my dad used to say 'God give you the sun to use not to sleep' I said when you waste one day you'll never replace it, no so I just kept on working, kept on drinking. Lucky it was in the early stages eh, wasn't bad at all so I just

carried on with everything, no never changed a thing, kept working, and kept drinking, in Fiji everybody drinks like hell so I just carried on with it. (C: 1; 6)

Making every day count by **Carrying on Regardless** with the all-important dimensions of a life fully lived is also exemplified in the following excerpt from Participant F:

You just carry on because you more or less, like you think you've got to leave all the other things behind you know like all the good parts you are going to miss out on in life and all the parties you going to miss out, and all the young girls you are going to chase around so it takes a while to put the brakes on, for that control. (F; 1; 16)

**Carrying on Regardless** has sub-categories derived from the theoretical codes of *hitting it* and *suspending time and motion control*. For all participants this resulted in a long time passing before making any changes to their lifestyle, which affected control of blood sugar levels. These initial earlier concepts were then further refined and conceptualised into the wider enveloping outcome category of **Carrying on Regardless**.

Table 15: Stage One: sub-category: *Hitting it*

Paradigm component	Category	Sub-Categories
Consequence	<b>Carrying on Regardless</b>	<i>Hitting it</i> <i>Suspending time and motion and control</i>

**Sub-category: *Hitting it***

*Hitting it* was a dimension of **Carrying on Regardless** and *hitting it* was related to *suspending time and motion and control*.

This sub-category is derived from an in vivo code used to depict the excessive consumption of alcohol. ***Hitting it*** is a common term used by Part-Europeans for extreme behaviour, but most notably is used for the drinking of alcohol to excess. The following excerpt may clarify the term ***hitting it*** for the reader:

He told me to watch my sugar levels – but I just didn't bother because I was drinking a lot you know and I just carried on hitting it. (G: 1; 17)

For most participants, especially the males, the dimensions of life and living revolved around the consumption of alcohol. Alcohol significantly pervaded every dimension of their lifestyle, *suspending time and motion control*, and was an important aspect of **Carrying on Regardless**. Participants used traditional medicine to minimise the harm of *hitting it* thereby enabling the process of **Carrying on Regardless** in this first stage. The following excerpt has been quoted before to illustrate how traditional medicine enabled 'keeping going' which is synonymous with 'carrying on' and it is used again to illustrate how **Sticking with the Tried and True** allowed for the continuation of *hitting it*:

But the layalaya that's the best one for the sugar I believe it washes it right out for me, it always does, that's the one thing I believe was keeping me going in the early days 'cos I used to drink, drink everyday, it cleans you out and gets rid of the alcohol. (C: 1; 18)

Alcohol masked the effects of diabetes, allowing participants to continue the process of **Carrying on Regardless**.

The aspect of not controlling their drinking patterns was a major factor in *suspending time and motion control* during this phase of the managing process. The following excerpt illustrates just how pervasive alcohol is when Participant G confesses to choosing alcohol over buying the testing equipment. The testing equipment was needed to control blood sugar levels. Instead G chose **Carrying on Regardless** with *hitting it*, in effect *suspending time and motion control*. The following excerpt shows the related dimension of *hitting it* to the sub-category of *suspending time and motion control*:

I was an alcoholic see and I couldn't live without it, I didn't want to live without it, that's why I didn't get my testing equipment and I carried on drinking for a long time because I couldn't live without it and all my mates were doing it too, was very hard to give it up. He said

you could go to the chemist and just get this testing machine – just a small thing. But I just didn’t bother because I was still on alcohol that time and I still didn’t want to live without alcohol. (G: 1; 6)

*Table 16: Stage One: sub-category: Suspending time and motion and control*

Paradigm component	Category	Sub-Categories
Consequence	<b>Carrying on Regardless</b>	<b><i>Hitting it Suspending time and motion and control</i></b>

***Sub-category: Suspending time and motion and control***

When the participants received bad news, and realised *what a difference a day makes*, the consequence at this early stage was that they carried on regardless. For some of them this meant *hitting it*, and for others it meant *suspending time and motion and control*. *Suspending time and motion and control* conceptualises the imagery of taking a while to control their blood sugars, in reference to the participants’ time and motion words of ‘taking a while to control’, and ‘not controlling my blood sugars’ as the following excerpt illustrates:

I thought, Man how the hell am I going to change my lifestyle? you know. So it took me quite a while to change my lifestyle. That’s probably the reason why to start off I didn’t have proper control, you know of my life and my blood sugars. It took me a while. (A: 1; 8)

*Suspending time and motion and control* due to **Receiving Bad News** means time and motion is suspended. In the previous excerpt, Participant A says, ‘So it took me quite a while to change my lifestyle’ and *not knowing* how to change was ‘the reason why to start off I didn’t have proper control’. Illustrated in the words of Participant F is the difficulty of having to change everything in a life that is familiar. How does one change the ordinary and the familiar?

Um, you more or less say, like, this is my life, and I’ve got to change everything, oh it’s too hard I’ll think about it tomorrow and just carry on what I’m doing. (F: 1; 4)

A life that is ordinary and familiar consists of familiar faces and places and daily routines. These things provide us with a sense of security and belonging. All this is lost with immigration to a new country. The sense of belonging re-establishes itself as one develops social networks, and finds recognisable landmarks. With time, places and faces become familiar. For Participant B, carrying on with the same doctor provided a sense of doing the normal and familiar that was missing when he first arrived. Getting on with his life was important to him, and the sense of familiarity that he felt with this doctor from Fiji provided a sense of security that enabled B to get on with re-establishing his life. Participant B carried on with this doctor even though this was detrimental to his managing process, and in doing so he was *suspending time and motion control*:

Because he was from Fiji and we were familiar with him and we needed to get on with our lives we just carried on with him even though he didn't give us any information about how to make any changes or where to get the support for controlling sugar levels and we didn't know, we had just arrived in New Zealand. (B: 1; 9)

The following excerpt from Participant E illustrates another dimension of how participants were **Carrying on Regardless** with all the affairs of life and living, therefore, in effect, *suspending time and motion control* and not attending to their disorder. Participant E was carrying on with the plans that he had made to attend his mother's funeral, carrying on with that journey, even when good sense indicated he should perhaps call it quits and come on back to New Zealand. He had paid for 12 days and wasn't going to be cheated out of his reunion with family members, and so he carried on suspending the time and the motion required for seeking medical assistance:

Oh well my blood sugar's 23 so what, yeah that's right, that's it and I just carried on. (E: 1; 26)

The funeral was over and after three or four days my feet were swollen and it was oozing with a lot of pus eh I was absolutely sick, but I stayed another extra five six days 'cos I went for 12 days, I should taken some control with my sugar levels and I should have come back but I carried

on and went to \*. In \* I carried on went to \* the next day I carried on and went back to \* then to \*. When I got back I was admitted straight to hospital. (E: 1; 33)

The excerpt from Participant E illustrates how **Carrying on Regardless** had the effect of suspending the time and the motion control needed to manage his blood sugars. Scenarios such as this were typical and resulted in a long time passing before participants made any changes to their lifestyle and/or took control of blood their sugar levels.

Time and motion control refers to the participants' words of not only controlling their blood sugar levels but also the other different aspects of their life that set the stage for the process of **Carrying on Regardless** with the life they were already living. The dimensions of this life were drinking, eating, playing, living, loving, working, and generally getting on with it – a life fully lived and a life that they needed to maintain enjoyment:

I did not really control it well because of the type of job I was doing involved the wining and dining area, playing rugby, and having lots of beers. I did not control it well, and because it did not affect my life I just carried on, because the effects of diabetes did not show on me I did not feel anything about it, so it didn't bother me. (D: 1; 29)

The relationship of the category **Receiving Bad News** had the effect of suspending time and motion of changing doctors, changing a lifestyle, changing patterns of working, playing rugby, partying, chasing girls, drinking, eating, loving and living – in summary, all the good things in life as one participant put it 'we just carried on like normal'. The protecting amour of 'not worrying about it too much' and the 'carrying on like normal' is the normalising of events in times of turmoil or adversity:

My mother was diabetic right from childhood and at that time we didn't know too much about it and it didn't worry the children because we just carried on our normal work without worrying about it too much. Likewise I didn't worry about it too much either I just continued with getting on with life. (D: 1; 7)

*Suspending time and motion and control* is a ‘long time passing’ as in the words of this participant and set the stage for **Carrying on Regardless**:

Early stages like eh, I just carried on with everything, no I didn’t change a thing, yeah but I didn’t control it no, carried on drinking, yeah it took a long time passing to get to where I am now. (C: 1; 36)

Not controlling or modifying their diet or their drinking patterns came through very distinctly for many participants. However not all participants recalled these times with regret. Some participants, like E, recalled this stage of their life cycle with a sense of ‘well that’s just the way it was’, with an accepting of ‘me being me’ for his actions during this first stage of his managing process:

They said to me if you do what we ask you to do now you probably won’t even go on insulin, but me being me I just carried on with the way I lived my life and it wasn’t long after that I had to go on insulin. (E: 1; 3)

Many participants recalled lying about the type of food they ate – the portions and the amount – and even lied about taking their oral hypoglycemic agents. They especially lied about the amount of alcohol they drank. For many participants, concealing a lifestyle in order to continue *hitting it* was to enable them to carry on regardless which was, in effect, *suspending time and motion and control* and contributed to this first process of **Carrying on Regardless**. Participant A reveals that he continued to employ subterfuge to conceal lifestyle habits that were considered as ‘bad’ by healthcare providers, like the dietician:

I was drinking heavily and I know I used to go to the dietician and they’d say, ‘Well did you do this?’ – ‘yes’, ‘did you have that much’ – ‘yes’. I lied and I think they could see through me but I still lied about what I ate and drank. (A: 1; 14)

### **Summary of Stage One: Carrying on Regardless**

The chain of connections in the conditions, actions/interactions and strategies in the first stage of **Carrying on Regardless** began when participants were given the

diagnosis of diabetes categorised as **Receiving Bad New**. When participants were given the diagnosis of diabetes they had ‘initial reactions’ that ranged from feeling stunned to feeling devastated. The diagnosis was categorised as **Receiving Bad News** and their ‘initial reactions’ were funnelled into two sub-categories called *what a difference a day makes*, and *fearing loss and change*. Participants talked about the disease **Lacking Face and Form** with nothing to see or feel and they lacked knowledge of how to change things, or didn’t want to change things at the time. Without tangible evidence of the disease process and *not knowing*, there was *nothing to see so nothing to do*. The participants’ actions/interactions at this stage were of **Disengaging, disconnecting and detaching from conventional medical care**. These actions and interactions were aided and abetted by the strategies that the participants put into place. These strategies were *using traditional remedies to keep going*, conceptualised by the wider category of **Sticking with the Tried and True** traditional medicine for ‘keeping going’. Participants wanted to maintain all the dimensions of life and living that they enjoyed. Keeping going is synonymous with carrying on with life and living, and carrying on with life and living was the main concern of the participants throughout their managing process. The outcome was that participants carried on *hitting it* and *suspending time and motion and control* of their blood sugars and other dimensions of their lifestyle.

Within this context, the disease lacked visibility – there was nothing to see, so there was nothing to do – and participants were either lacking knowledge, or didn’t want to know. These contextual conditions were categorised as **Lacking Face and Form** with sub-categories called *not knowing*, and *nothing to see so nothing to do*. The actions/interactions of the participants in this context were to disengage from conventional care, and the category was called **Disengaging**. This category had a sub-category called *disconnecting and detaching from conventional medical care*. These



actions and interactions were aided and abetted by the strategies that the participants put into place. The strategies of **Sticking with the Tried and True** by *using traditional medicine to keep going* and the sub-categories of *hitting it*, and *suspending time and motion and control* were all pieces of interrelated and overlapping actions and processes that produced the outcome of **Carrying on Regardless** in this first stage of managing diabetes. The outcome was that participants carried on regardless *hitting it* and *suspending time and motion and control* of their blood sugars and other dimensions of their lives.

## CHAPTER FIVE: STAGE TWO ATTEMPTING BALANCE IN TIME AND MOTION AND CONTROL

---



*Figure 3: Experiencing Bad Things*

## Introduction

In stage one I have shown how the participants **Carry on with Life and Living** regardless. In this second stage they are confronted with a clearer experience of the bad things associated with diabetes, and the data shows that they still **Carry on with Life and Living**, but they start attempting to balance and begin to control their behaviours.

In this second stage the causal condition of **Experiencing Bad Things** depicts the bad things that happened over time and in changing circumstances that set in motion this second stage of the managing process. In the condition of **Experiencing Bad Things** they begin *counting the cost and feeling the loss* and within this context they look for a reason. They find this reason and begin attaching blame and **Finding the Fault Line** with doctors, insulin, and then with themselves by *looking at the man in the mirror*. This context leads to actions/interactions of gaining knowledge and overcoming previous fears, and making connections with themselves and with their previous attitudes and behaviours.

They do this through *engaging with the man in the mirror*, which is **Engaging With Self And With Others**. These actions/interactions catalysed participants into strategies that involved **Making Some Changes**. They make changes by *leaving things behind and leaving things out* in their lifestyle and behaviours. The outcome was an attempt at balancing the time and the motion and the control that is needed in all aspects of their lifestyle by finding out what works. **Attempting Balance in Time and Motion and Control** to enable **Carrying On With Life And Living** was the outcome of this second stage for Part-Europeans managing Type 2 diabetes. The following table lays out the paradigm of the second process of managing for these participants with Type 2 diabetes. **Attempting Balance in Time and Motion and Control** is also visually presented in Figures 3, 4, and 5 in pages 103, 116 and 126.

## Stage Two Paradigm Component

Table 17: Stage Two: Attempting Balance in Time and Motion Control

Paradigm component	Categories	Sub-categories	Codes	Concepts /properties
Causal Conditions for progression/ Changes over time	<b>Experiencing Bad Things</b>	<i>Counting the cost and feeling the Loss</i>	Losing All Good Things  Bad Happenings	<i>Going into hospital Going on insulin Losing health Losing friends Losing means of employment Losing enjoyment</i>
Contextual conditions	<b>Finding the Fault Line</b>	<i>Looking At The Man in The Mirror</i>	Blaming  Disregarding Advice/ Warnings	<i>Blaming insulin Blaming doctors Disregarding advice and warnings Not listening Not controlling Blaming socio-economic</i>
Actions/interactions	<b>Engaging with Self and Others</b>	<i>Engaging with the man in the mirror</i>	Overcoming  Connecting  Gaining Knowledge	<i>Coming to terms with diagnosis and fears. Connecting with diagnosis with self and with others. Gaining knowledge, finding out more.</i>
Strategies	<b>Making Some Changes</b>	<i>Leaving things behind and leaving things out</i>	Leaving Things Off  Leaving Things Behind	<i>Changing doctors Changing friends Changing some lifestyle behaviours</i>
Consequences	<b>Attempting Balance in Time and Motion and Control</b>	<i>Finding out what works</i>	Searching For Balance Taking Action	<i>Negotiating management with treatment providers  Identifying own balance between food and exercise and blood sugar levels</i>

This table display the categories and sub-categories to show the full process of the second stage of the participants' managing process. I will break down and discuss each section in turn. So, I now turn to the first segment of Stage Two, as shown above.

Table 18: Stage Two: The Cause: Experiencing Bad Things

Paradigm component	Category	Sub-category
Causal Conditions for progression/Changes over time	<b>Experiencing Bad Things</b>	<i>Counting the cost and feeling the loss</i>

### The Cause: Experiencing Bad Things

**Experiencing Bad Things** depicts the causal conditions that begin to move participants along into the next process of managing their disorder. The years of

**Carrying on Regardless** lead themselves or their friends to **Experiencing Bad Things**.

Going to hospital was, for most participants, the first indication that their diagnosis of diabetes in the first process of **Receiving Bad News** was serious. The dimensions and properties along the continuum of **Experiencing Bad Things** will be explored – beginning with going to hospital and being diagnosed with further complications, going to hospital and having amputations, and going on insulin. **Experiencing Bad Things** was also considered in relation to bad things happening to friends or family members that had diabetes.

**Experiencing Bad Things** came from an in vivo code ‘bad things started happening’ as illustrated in the following excerpts taken from Participants C and D. Some participants like C were hospitalised because their sugar levels were too high. While in hospital to stabilise their blood sugars they found out they had other complications. For Participant C the complications were gout and arthritis:

Bad things started happening to me I got very sick, very sick – sugar too high. Went to the hospital. That’s when my pressure was really high. They tested me, sugar too high, they drew some fluid from my ankle, they found that I had gout and then had to remove a big bunion. The specialist that operated on me said I was riddled with gout, diabetes, and arthritis. (C: 1; 6)

The in vivo code of **Experiencing Bad Things** was also derived from the following excerpt from Participant D who started **Experiencing Bad Things** before he was admitted to hospital. Once in hospital he had to have a toe amputated. Going to hospital and losing a toe was **Experiencing Bad Things** for D. His lifestyle caught up on him, his toe was gangrenous, and had to be amputated. Fortunately he had NZ residency that allowed entry for healthcare, thereby staving off further amputation:

Thursday night was a bad one I had fever, but I went to work again on Friday but then it really went worse. Bad things started happening on Friday night so the doctor, on Saturday morning, gave me some more tablets, and gave me an injection. Sunday was worse things; I was feeling delirious on Sunday night. Monday I went back to the Dr – he

saw me and admitted me to hospital because one of my toes had gone black. They had to take the toe on Tuesday. They were going to amputate the third toe and my son picked me up and brought me to New Zealand. (D: 1; 14)

For Participant E, **Experiencing Bad Things** was the result of **Carrying on Regardless** in the first process. Taking no notice of his ulcer and just carrying on culminated in an infection that hospitalised him with the threat of losing his whole leg:

It started from November but I took no notice of it and just carried on yeah I carried on like that for a while but the ulcer just didn't heal. One of the doctors gave me antibiotics and it healed from the outside but not on the inside, it kept festering in there, started to ooze every now and then it just blew up. Got infected, I had to go straight into \* straight into theatre. The infection was so bad it had touched the bone, they were going to take it I could have lost my whole leg. (E: 1; 6, 37)

For many participants, going on insulin was the end of the line and signified **Experiencing Bad Things**:

When they told me I had to go on insulin I thought Oh crickeys that's bad, not the needle! (A: 1; 5)

Going on insulin for me is the end of the line, man that's it now. (E: 1; 4)

When reminiscing about past enjoyment of work and recreation, Participant B recounted his previous lifestyle capabilities before he started **Experiencing Bad Things** which, for him, was going on insulin:

In six years my diabetes got worse and I had to go on insulin. (B: 1; 6)

**Experiencing Bad Things** was also in relation to close friends or family with diabetes. Sometimes the death of a friend moved a participant through into this second stage process:

You know my friend \* well its really bad, he was only a bit older than me, had diabetes, hid it from everyone. I only found out a month before he died. I still can't get over it. (G: 1; 12)

Table 19: Stage Two: Causal sub-category: Counting the cost and feeling the loss

Paradigm component	Category	Sub-category
Causal Conditions for progression/Changes over time	<b>Experiencing Bad Things</b>	<b><i>Counting the cost and feeling the loss</i></b>

***Causal sub-category: Counting the cost and feeling the loss***

In grounded theory terms, the causal conditions category **Experiencing Bad Things** is the wider enveloping category that conceptualised and subsumed the sub-category ***counting the cost and feeling the loss***. When the participants started **Experiencing Bad Things** some of them began ***counting the cost and feeling the loss*** of these bad things. For some participants, watching what their friends were going through and feeling the losses that their friends were experiencing led to counting the cost of going down that same road. Some of them began to feel the loss of their friends who had died from the long-term complications of diabetes. Other participants were counting the cost financially and feeling the loss of employment and enjoyment due to **Experiencing Bad Things**. This excerpt from Participant F illustrates how this sub-category was taken from an in vivo code:

Frightening sort of situation my friendship with \* eh, a good friend. You count the cost when you see what they are going through, its rough man, it's a loss and I don't want to go down that way. (F: 1; 28)

Participant F's recollections of the many trials and tribulations that his friend was going through because of the associated restrictions imposed by dialysis leads him to take stock of his own life. Feeling empathy for the loss that his friend was experiencing in having to curb his former lifestyle, F counted the cost of going down that same road.

Participant G tells of a friend's death – a good friend, a drinking buddy who never, in all the time they knew each other, ever shared with G the fact that he had diabetes. He instead chose to hide it till the very end and continued drinking. This was a terrible shock to G and he recalls how his friend hid his disorder and how his continued

drinking finally led to his death. A lifestyle of excessive drinking has high stakes and for G *counting the cost and feeling the loss* of a friend was the catalyst that scared him into cutting down his own alcohol intake:

I still can't get over the loss of my friend, he lost his life, had diabetes and he died, but he hid it from me, never knew until only about a month before he died, yeah cost him his life man, big loss for us all. (G: 1; 11)

When B went on insulin he could not seem to get the dosage right in the beginning and had a fear of injecting himself. He also had some severe 'hypos'. B was used to the exercise, the freedom, and the sense of purpose that came with his livelihood. Now he was afraid. Afraid to go too far in case he had a hypoglycemic attack. He began *feeling the loss and counting the cost* in terms of his own personal and financial freedom:

When I went on insulin I couldn't get it right at first just kept getting hypos and I got scared so I had to give it up. I felt hemmed in – closed in the house. I used to look forward to it, delivering the papers and pamphlets. Eight hours a day I used to do. I did so much of it – no problem – it was handy and I got extra money in my pocket. I carried it on the bike. I used to enjoy doing that. Used to keep fit as well. I still miss that, I did it a very long time. (B: 1; 7)

With the means to earn a living severely curtailed, B's world closed in on him. He felt hemmed in by the narrow confines of his house. The keen sense of loss for B was for a lifestyle gone. Counting the cost of **Experiencing Bad Things** came through very clearly during our interview that day.

Defining passages of life and events in relation to **Experiencing Bad Things** seemed to coincide for many with migration and the losses incurred during this time. For Participant C *counting the cost and feeling the loss* of his health coincided with counting the cost and the loss of his status back in Fiji:

I am a little fish in a big pond here, back home I had a very good government job yeah miss that, it was a good life but that's the cost of coming over here [NZ], lost my health here too. Doctor said to me 'your liver's withered, gone'. My liver was withered or gone and I said, 'well give me something to take to cure it'. He said 'no son, there's nothing to cure that, if you want to live you stop drinking'.



‘Give me something to take to cure me’. ‘No son, there’s nothing to cure that’. (C: 1; 11)

For many participants the loss of health also meant the loss of employment. Participant E recollects the lost income and the strain he felt when he couldn’t continue working. He wasn’t eligible for a Work and Income Benefit, neither was he eligible for Accident Compensation. He began *counting the cost and feeling the loss*. He was beginning to walk the fault line:

So I’m not into ACC, I’m not qualified. I can’t get invalid, I can’t get anything, ’cos my wife works and she’s just over the limit. I’ve been to and fro from Work and Income, and the doctors don’t want me to work, I’m on no income, things are strained. (E; 1; 2)

Table 20: Stage Two: Contextual Conditions Category: Finding the Fault Line

Paradigm component	Category	Sub-category
Contextual condition	<b>Finding the Fault Line</b>	<i>Looking at the man in the mirror</i>

### Contextual Conditions Category: Finding the Fault Line

In this second stage of the managing process, participants seem to need someone or something to which they can attach blame for **Experiencing Bad Things**. **Finding the Fault Line** is the category that depicts participants finding fault with their healthcare providers, especially doctors, and sometimes with insulin. **Finding the Fault Line** also depicts participants finding fault with themselves and this is contained in the sub-category of *looking at the man in the mirror*. While listening to the interviews and speech patterns of the participants, I realised that ‘the fault line’ is a common term that has become incorporated, through constant use, into our shared understanding of finding and attributing blame. **Finding the Fault Line** stems from an in vivo code thus:

He just dressed my ankle at first but no test until the second visit there and then he tested it but I had to make the suggestion and I wonder if he would have picked it up if I didn’t and that’s the fault line because a lot of people don’t get picked up straight away. (B: 1; 2, 3)

The communication difficulties experienced during the early days of their diagnosis and the resulting disengagement from further treatment and care led to **Finding the Fault Line** with doctors for **Experiencing Bad Things**.

**Finding the Fault Line** with doctors for the lack of referrals was a major theme for many participants. Many participants experienced deteriorating vision and blamed the lack of referrals from doctors to ophthalmologists for the loss of their eyesight. The following excerpt from Participant B shows him **Finding the Fault Line** with his doctor for his blindness:

If Dr \* wasn't so slow in referring I wouldn't have lost an eye. It's his fault because we should have been referred earlier I think then he could have saved my eye. When I just started going to him I feel he could have saved it if he wasn't so slow in giving me appointments there was too much delay and my eye was deteriorating. (B: 1; 32)

**Finding the Fault Line** for 'not referring on' led some participants to hark back to the days of disengagement in the first stage, and the reasons that they disconnected from a prescribed course of treatment. An example is the excerpt from Participant F who felt that his GP should have referred him on to a specialist:

Sometimes you go to a doctor and he prescribes some tablets and when you see another doctor he says that's the wrong one and we'll give you this one, gets to the stage you don't think they know what there doing eh, they try and treat it all themselves instead of referring you on to someone who specialises in diabetes. (F: 1; 24)

Participants began **Finding the Fault Line** by attaching blame to doctors for not picking up signs and symptoms that, from their point of view, could have prevented **Experiencing Bad Things**. An example is that of Participant C who blamed his doctor for not diagnosing his gout and arthritis. He was coping with his sugar problem, but began **Experiencing Bad Things** when his gout and arthritis was not picked up and treated appropriately:

But you know I blame the doctor he never tested me so when I went to my doctors after that I was pretty mad I said, 'Why didn't you test me?' He said 'well what for now...' you know, he said 'what for now'. Now that's the fault line, right there because I said to him sugar, gout and arthritis go together don't you know. (C: 1; 8)

Participants who had to start on insulin felt that there was a lot of experimenting that had to be done on their part to get the correct dosage. For these participants **Finding the Fault Line** led to finding fault with healthcare providers for the lack of guidance and direction with insulin dosages:

See when I first started they told me I had to have just a certain number of units so I stuck to it and at times when I shouldn't have taken that much I could have lessened it so there's the fault line right there because they never told me this. I was stabbing myself with the full dose all the time, having discomfort because of it. (A: 1; 22)

**Experiencing Bad Things** for the participants was amputations or going on insulin, especially if going on insulin was perceived as the end of the road. The following excerpt from Participant D encapsulates **Finding the Fault Line** in insulin for the early deaths of his family:

They asked me 'Are you on insulin?' and I said I don't believe in it there must have been something wrong with the insulin, because everyone of my family was on insulin and yet they just all keeled over, all died while on insulin. I told the doctor the fault is with the insulin. I did not want to go on the insulin, although everyone said I was bloody stupid. (D: 1; 48)

In **Finding the Fault Line** D believes there is something wrong with insulin, and despite the amputation and the further threats of another amputation he continues to resist going on insulin. Participant D is **Finding the Fault Line** with insulin as he recalls with suspicion that insulin had apparently caused the early deaths of his family.

Table 21: Stage Two: Contextual sub-category: *Looking at the man in the mirror*

Paradigm component	Category	Sub-category
Contextual conditions	<b>Finding the Fault Line</b>	<b><i>Looking at the man in the mirror</i></b>

***Contextual sub-category: Looking at the man in the mirror***

**Finding the Fault Line** in this second stage of their managing process meant that all participants were attaching blame and **Finding the Fault Line**. While some participants were **Finding the Fault Line** by attaching blame to doctors and to insulin for **Experiencing Bad Things**, others began looking at aspects of their lifestyle, like playing rugby and partying, and not controlling blood sugar levels, diet, and alcohol consumption. The sub-category of **Finding the Fault Line** is *looking at the man in the mirror*. This sub-category conceptualises self-revelation in the reflective gaze of a mirror in the light of **Experiencing Bad Things**. Dimensions of their own lifestyle that they had previously disregarded, or been careless about, were scrutinised when they began *looking at the man in the mirror*. The following excerpts illustrate how *looking at the man in the mirror* became a sub-category of **Finding the Fault Line**:

Looking at myself now I realise I was drinking too much, you see I didn't control it, an alcoholic, a lot of drinking most of the time I was drunk every second day you don't feel it, it doesn't show. I was drinking nearly every afternoon, you know after work I make sure I go down to the pub and by the time I get home it's 10 o'clock at night and I'm pissed. But I didn't stop straight away; I didn't stop when he told me I had diabetes, I only stopped lately when my friend died. (G: 1; 19, 27)

For some participants, *looking at the man in the mirror* involved the recollection of disregarded warnings. Participants recalled that some advice given around managing blood sugar levels was usually mixed with warnings of dire predicaments if a pattern of behaviour continued. For Participant G it was his alcohol consumption, looked at in the light of his friend's death and with the knowledge that they were drinking buddies. For

Participant G **Experiencing Bad Things** like the death of a friend led him to recall the warnings given along the way, such as ‘the same thing will happen to you’:

I told him this ‘why didn’t you tell me he had it man?’ He said, ‘Let this be a lesson to you. I gave you all the advice you need but have you taken the advice that I’ve given you? No, have you got your blood sugars down? No’. See, so now I am looking at myself and it’s me to blame, it’s only me. (G: 1; 12)

But looking at myself now its only me to blame because he said, I advised you to stop your drinking ‘I’m warning you, stop your alcohol – it doesn’t go with sugar diabetes’ but I didn’t control it at the time. He was warning me, ‘see if you don’t listen to me and continue doing this what I’m telling you is the same thing will happen to you, you can die or you can go blind’, but I continued on drinking. (G: 1; 13, 31)

**Finding the Fault Line** for many male participants led directly to themselves, as the reflective gaze of the man in the mirror revealed the excessive drinking and some participants began seeing that as the reason for getting diabetes and **Experiencing Bad Things**:

In the face of it now I look at myself and realise I used to drink heavily which is probably why I’ve got diabetes, because I used to be one helluva heavy drinker, you know. Maybe my drinking and my eating, you know led to me getting it. (A: 1; 14)

As well as alcohol, warnings were ignored around controlling dietary habits. Some participants were given a course of therapy involving diet control with the use of hypoglycemic agents to avoid or delay going on insulin:

Before I had to go on insulin he warned me to control my diet or I would end up on insulin, and gave me the tablets to help. (A: 1; 24)

Participants like G were given physical warnings – signs and symptoms of impending **Experiencing Bad Things** that were ignored:

Looking back now the warning was when the infection started setting in I was so weak, I think the thing was killing me, I think another couple of days there and the thing would have got my body, I could have died because I could feel it was poisoning my blood eh. (G: 1; 3)

Participant G chose to disregard the signs and symptoms that indicated that his condition was deteriorating; he also ignored the advice of his doctor to monitor his

glucose levels consistently. Participant G recalls memories of not bothering to get the glucometer needed to help him control his blood sugar levels. Monitoring his blood sugar levels needed an aspect of control that G felt he wasn't ready for, because that would mean controlling other aspects of his life, like drinking. When *looking at the man in the mirror* Participant G admits he wasn't ready to live without alcohol during this phase of the managing process:

He said, you could go to the chemist and just get this testing machine – just a small thing, when I look at it now. But I just didn't bother because I was still on alcohol that time and I still didn't want to live without alcohol. (G: 1; 6)

Some participants recalled the warnings given around taking oral hypoglycemic agents with alcohol. When *looking at the man in the mirror* Participant C recalls that he did not listen when advised to reduce his drinking while taking an oral agent as the following excerpt reveals:

'You may have go on insulin, be careful drinking when you're on those tablets, make sure you reduce it completely', but I didn't, not straight away, anyway. (C: 1; 18)

Participant E recalls taking no notice of the advice from his neighbour to get some proper medical attention:

Looking at 16 on my readings he used to freak out man, but you know I took no notice he used to say 'boy you better get seen to' but I never did at that time. (E: 1; 53)

Insulin is not a prerequisite of managing Type 2 diabetes if lifestyle modifications are made around diet and exercise. If diet is controlled, and exercise and regular glucose monitoring is done to avoid the fluctuations in blood sugar levels, the long-term complications can be lessened and delayed.

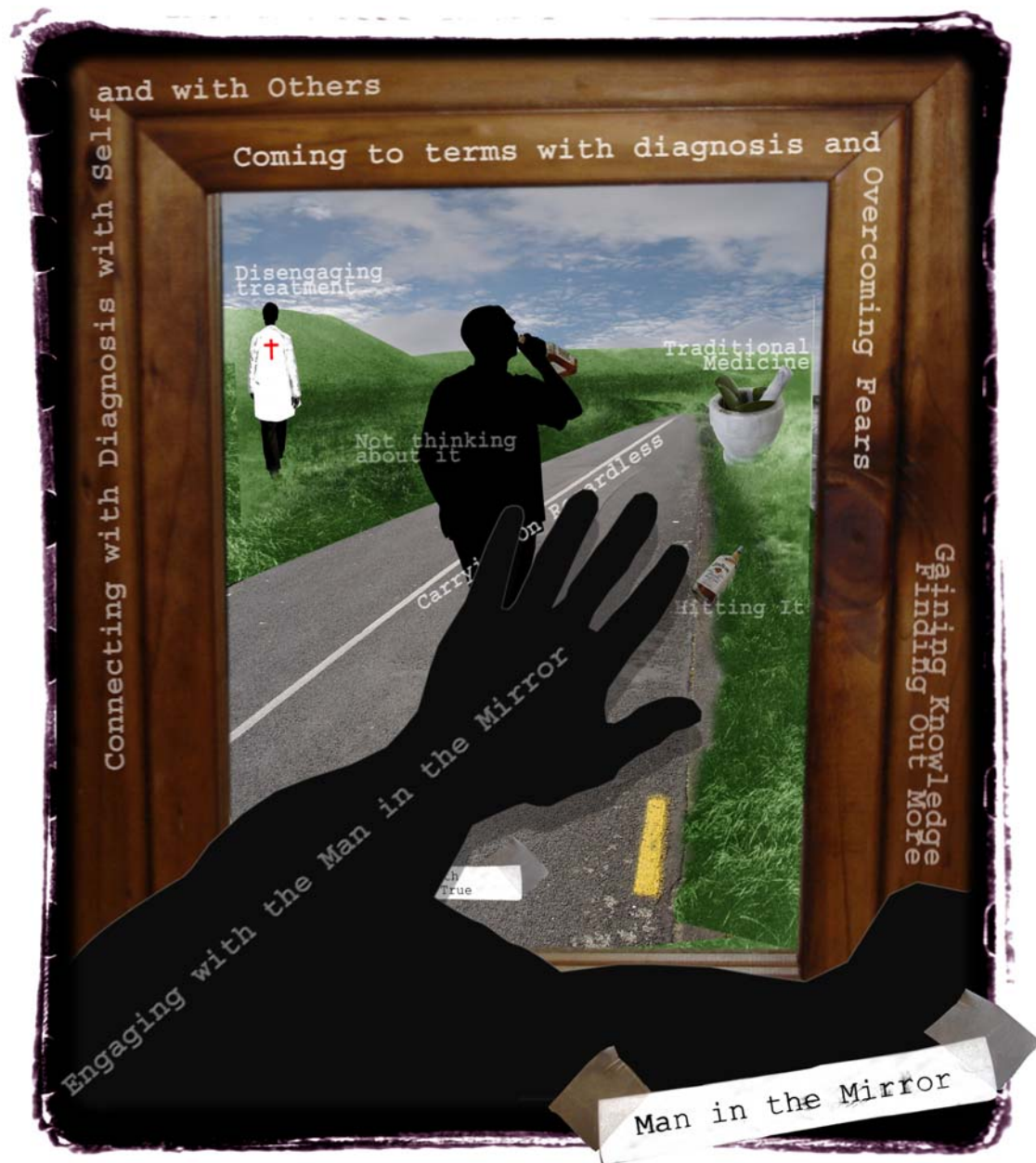


Figure 4: Man in the Mirror

In *looking at the man in the mirror*, Participant A recalls that he was given advice around modifying his diet and then given oral hypoglycemic agents and told that if he stuck to a course of therapy involving diet control with the use of hypoglycemic agents he may avoid ever having to go on insulin:

Then he said ‘if you can control your diet now, tablets would help you stay where you are’, but me being me, that never happened and it wasn’t long after that I had to go on insulin. (A: 1; 25)

While *looking at the man in the mirror*, participants were also **Finding the Fault Line** in heredity or a bad diet of rich food, takeaways, and fizzy drinks:

My diabetes could be hereditary or, because seven, eight years of living here, of my diet and the type of food that I was eating. A lot of rich food, takeaways on the run to work, dairy food, fizzy drinks. (E: 1; 42)

It’s got a lot to do with your diet. I mean I can’t say I wasn’t non-active, I’ve always been active but diabetes still got me, so looking at myself now it could have been what I ate, what I drank. I drank a lot. (F: 1; 40)

*Looking at the man in the mirror* in the following excerpt is Participant D as he sums up a good life – a life that was enjoyed with all its fullness and variety in work and in play. Wining and dining were a necessary part of maintaining his job, and D enjoyed it and didn’t want to change a thing. D was advised to cut down on his working hours and the many functions that came with his job description. This is very difficult to do when the work is enjoyable and one is deriving a sense of satisfaction and a sense of achievement. D blamed himself for not taking the diagnosis of diabetes seriously:

See, I blame myself, for not taking it seriously, it’s my fault. (D: 1; 5)

The job I was doing, we got involved too much in the wining and dining area and so I didn’t really control it well and anytime there was a diplomat arriving in Fiji, there was some sort of function on in one of the Embassies. So you were invited ... always with food and drinks, more drinks than food. It was a good life and I enjoyed it. They tested my blood sugar and said you better be careful. They tell me drinking, make sure you reduce it completely, and sugar, but the only thing I actually managed to control is not take any sugar. I enjoyed playing rugby; I enjoyed the beers, and the functions, lot of functions and working. (D: 1; 36)



Table 22: Stage Two: Actions/Interactions: Engaging With Self and With Others

Paradigm component	Category	Sub-category
Actions/interactions	<b>Engaging with Self and Others</b>	<i>Engaging with the man in the mirror</i>

### **Actions/Interactions: Engaging With Self and With Others**

**Engaging with Self and Others** is the category that depicts the actions and interactions of participants in this second stage of their managing process.

**Engaging with Self and Others** in this stage of **Experiencing Bad Things** for many participants meant having to go right back to the first stage of **Receiving Bad News** and the myriad of emotional feelings that they felt upon **Disengaging** in the first process of **Carrying on Regardless**. Engaging came from an in vivo code taken from Participant A's interview where he uses the analogy of driving and engaging the gears of a vehicle to get it moving:

At first because it was so devastating the news you know the gear stick in the brain was stuck, like learning to drive and not knowing how to work the gear changes. Well it was just as hard to engage with the thought at first. I was like a truck stuck in first gear. (A: 1; 5)

In the first stage participants wanted to carry on regardless with all of the dimensions of life and living. Interaction with doctors and other healthcare providers were less than conducive to forming relationships that would provide education and ongoing support. There was either a lack of engagement perceived by participants from their doctors or a lack of commitment from participants to seeking any engagement from their doctors. The subsequent **Disengaging** and *detaching* from healthcare and supported management was sometimes reciprocal and at other times one-sided. Participants also lacked knowledge of what to ask of, or expect from, proper care. The effects of diabetes were not immediately noticeable and that invisibility allowed participants to not think about the medical aspects of diabetes, or the contribution that

health professionals could make to their overall functioning and management of this disorder. The later **Engaging with Self and Others** led to engaging and connecting with healthcare providers in this stage.

Now in this second stage of **Experiencing Bad Things**, participants begin **Engaging with Others** and started keeping appointments with healthcare providers:

But the first guy I went to he was more or less – ‘I’m here and I’ve got to do the job’ whereas this guy I’m with now he is there because he wants to do the job. He’s interested in me and I started keeping my appointments. (A: 1; 16)

While some participants were able to engage with physicians, other participants found a nurse more accessible and able to provide a sensitive responsive approach to their needs. The following excerpt was from a joint interview with husband and wife:

Wife: The nurse in hospital suggested he go to the diabetes centre, to a nurse for diabetes, he went and they explained everything, and we found that it was more accessible. (B: 1; 10)

**Engaging with Self and Others** also depicts participants reaching out to others in the community who have diabetes. It also depicts engaging with others in the community for help and support. The following excerpts show this:

I find a lot of people ask me questions and I try to answer the best way I can or I will tell them where to go to get the answers. (A: 1; 2)

I ring my mate \*\* and ask him things, he knows more than me, and it’s easier. (F: 1; 51)

*Table 23: Stage Two: Actions/Interactions sub-category: Engaging with the man in the mirror*

Paradigm component	Category	Sub-category
Actions/interactions	<b>Engaging with Self and Others</b>	<b><i>Engaging with the man in the mirror</i></b>

*Actions/Interactions sub-category: Engaging with the man in the mirror*

**Engaging with Self and Others** also contains the sub-category of *engaging with the man in the mirror* from the codes overcoming, connecting, and gaining knowledge and these codes contain the concepts and properties depicted in the full table.

**Experiencing Bad Things** brought the initial diagnosis to reality. I will now take a closer look at the actions of the participants when *engaging with the man in the mirror* by coming to terms with their diagnosis, and gaining knowledge. The following excerpt also provides further explanation of the basis of the in vivo code for the category engaging:

I tried to come to terms with it, I actually started buying books on it and reading on it and you know almost became an expert myself on it, and as I read up on it, it told me what I should be doing and the old brain starting engaging, the gears were working. (A: 1; 6)

*Engaging with the man in the mirror* took the form of gaining knowledge through reading about the nature of the disease, the benefits of exercise, and the foods to avoid.

**Experiencing Bad Things** for Participant A was going on insulin. Coming to terms with having to go on insulin was an essential prerequisite for Participant A prior to self-injecting:

When they told me I had to go on the needle I said ‘Oh crickeys now that, insulin’ you know sort of thing. I was never one to be scared of needles but doing it to myself was a different thing eh. But I came to terms with it, it was something I had to come to terms with that it wasn’t going to go away. Then it didn’t take long to get used to the needle. (A: 1; 7)

Gaining knowledge for some participants also led to overcoming, coming to terms with, and connecting with their fears of injecting and phobias associated with needles. To adequately manage insulin participants needed to get used to the daily self-injecting and frequent self-monitoring of blood glucose. However, for many participants, the fear of needles and injecting caused distress:

Wife: To inject himself I think that was the fear that he had, it was a fear around that needle and everything.

B: The nurse gave me the first injection, and that wasn't so bad because someone else was doing it, but the thought of doing it myself ...

Wife: that was about two years ago but he came to terms with it after that. (B: 1; 7)

Now in this second action stage of the second managing process, participants began acquiring the necessary knowledge that enables them to understand and engage with the information required for daily management. *Engaging with the man in the mirror* depicts the participants connecting with their diagnosis and daily management plans.

The action and interactions category of **Engaging with Self and Others** in this stage now finds them coming to terms with their diagnosis and fears, gaining knowledge, and making connections with their previous attitudes and behaviours. Being able to make these connections appears to be the necessary prerequisite for the strategy of **Making Some Changes**.

Table 24: Stage Two: Strategies Category: Making Some Changes

Paradigm component	Category	Sub-category
Strategies	<b>Making Some Changes</b>	<i>Leaving things behind and leaving things out</i>

### Strategies Category: Making Some Changes

The strategies involved in **Sticking with the Tried and True** in the first stage found participants making no changes in their lifestyle. **Experiencing Bad Things** for many participants led to **Making Some Changes** and using strategies of self-care by changing doctors, friends, their lifestyle, and behaviour. The first strategy of self-caring by participants was **Making Some Changes** with doctors. **Finding the Fault Line** with doctors' lack of engagement, and non-referrals led participants to **Making Some Changes** to find doctors that they could engage with – doctors who would refer them on to other diabetic agencies or specialist providers:

If you want to take care of yourself a bit more you've got to do some changes, so I made them, changing my doctor was the first thing. (F: 1; 27)

Wife: when [Participant A] told him about Dr \* in \* we made the change, and changed from Dr \* to Dr \*. He was much better with going to Dr \*, he was good, easy to talk to, and understood us, all that we'd been through and he referred us onto the eye specialist and all the other services for diabetes. (B: 1; 9)

Many participants had visas that allowed them to come and go between New Zealand and Fiji, with the right to live here permanently. For these participants, the decision to make a permanent change was not taken lightly. As one participant puts it:

When you immigrate you're just a small fish in a big pond, back home I had a high status and a good paying job, enjoyed all the comforts of everything, two cars in the garage, and a driver, but I had to decide if I was going to live here permanently, and in the end I had to make the changes for my health's sake. (D: 1; 26)

**Making some changes** is the wider, more encapsulating, theoretical category that contains the sub-category of *leaving things behind and leaving things out*.

Table 25: Stage Two: Strategy sub-category: Leaving things behind and leaving things out

Paradigm component	Category	Sub-category
Strategies	<b>Making Some Changes</b>	<i>Leaving things behind and leaving things out</i>

**Strategy sub-category: Leaving things behind and leaving things out**

Participants who felt they needed to change doctors in order to manage their condition felt this was strategic to their overall managing process. However these were not the only changes they made. There were wider changes, like choosing to immigrate permanently to New Zealand for the sake of their health. While participants were making these wider changes, they were also making other lifestyle changes, which were often to do with certain cultural foods and beverages and, because participants referred to these actions as Leaving Things Off and Leaving Things Behind, these codes, the concepts, and properties of these codes displayed in the full table were enveloped in the

sub-category of *leaving things behind and leaving things out*. The following excerpt may clarify this for the reader:

But I made some changes to my lifestyle, like leaving out the coconut cream, and my grog days are left behind, just the occasional one now. (E: 1; 24)

Strategic decisions for **Making Some Changes** were initiated by participants to alter eating patterns by leaving out coconut cream, the fat off the corn-beef, and root crops:

I made some changes to my diet, with the fatty food, like the fat off the corn beef, I started cutting it off, and leaving it on the side of my plate. Also we stopped eating as much dalo and tapioca as we used to. (H: 1; 32)

Participants were leaving things behind that they felt were detrimental to their managing process. Making changes did not occur in all dimensions of their life, however, some participants moderated their diet but not their alcohol intake. Therefore, while some participants made some changes to what they ate, others were carrying on as usual with their drinking habits:

I just carry on like before only I just more or less try to watch what I eat and I don't drink more or any less of beer I still drink the same amount but I have made some changes to what I eat. (F: 1; 26)

Some participants made some concessions to moderating their diet 'just a little bit' but carried on drinking:

I probably made some concessions occasionally to leaving things out of my diet, you know, just a little bit, but I carried on drinking. (A: 1; 52)

*Leaving things behind and leaving things out* were in vivo codes because they were the exact words that the participants used to depict making changes. These in vivo codes were then conceptualised in the wider category of **Making Some Changes**. Other participants left drinking completely behind:

So I left it behind, drinking, when you know my friend died since drinking was one of my problems and since I left drinking behind life has been better for me. I was drinking heavily. Heavy, very heavy. Now only once a week, I'm drinking. (G: 1; 39)

*Table 26: Stage Two: Outcome/Consequence: Attempting Balance In Time And Motion And Control*

Paradigm component	Category	Sub-category
Consequences	<b>Attempting Balance in Time and Motion and Control</b>	<b><i>Finding out what works</i></b>

### **Outcome/Consequence: Attempting Balance in Time and Motion and Control**

The strategies that participants employed after **Experiencing Bad Things** in this second stage were **Making Some Changes** by *leaving things behind and leaving things out*. These strategies were an attempt at finding some balance that would enable them to **Carry on with Life and Living**. In order to **Carry on with Life and Living** they needed to find out what worked best for them in their treatment, exercise, and diet to keep their blood sugars at acceptable levels. **Attempting Balance in Time and Motion and Control** was the outcome and the theoretical category that embraced the sub-category of *finding out what works*. For some participants, **Attempting Balance in Time and Motion and Control** meant finding how much exercise or manual work was needed to keep blood sugars down. Whilst there were some participants who referred to time and motion control in this way, other participants were more concerned with seeking some control over dietary habits in an attempt to balance blood sugar levels.

In the search for balance and control, participants also negotiated with treatment providers with the aim of seeking their own balance in time and motion control rather than the prescribed regime or recommended treatment.

While trying to find out what worked best for them, participants referred to 'carrying on'. 'Carrying on' for participants in this second stage meant that actions and behaviours were geared toward finding their own balance in the 'time and motion'

required in order to control their blood sugar levels that would enable them to continue with life and living. The following excerpt shows this:

To carry on with life you need to work, so when I went to Fiji the last time, I was trying to find a balance with the work I was doing over there and my count was very good eh. I think it's finding how far I can go with a lot of manual work while keeping my sugar level down. (F: 1; 26)

The dimensions of **Attempting Balance in Time and Motion and Control** were different for each participant, but for all of them it meant looking for what works. In the previous excerpt, Participant F refers to 'finding out how far I can go', other participants referred to 'seeing how far can I carry on', or 'finding out what would carry me through'. These comments were made in reference to seeking a balance in actions and behaviours of time and motion that would enable them to continue with the life they wanted to live while making some concessions.

*Table 27: Stage Two: Outcome sub-category: Finding what works*

Paradigm component	Category	Sub-category
Consequences	<b>Attempting Balance in Time and Motion and Control</b>	<b><i>Finding what works</i></b>

***Outcome sub-category: Finding what works***

***Finding what works*** is an in vivo code with properties and dimensions that linked this code to **Attempting Balance in Time and Motion and Control**. In the sub-category of ***finding what works***, some participants referred to the devices for testing blood sugar levels. For example, Participant F needed to check how his blood sugars responded to manual work. **Attempting Balance in Time and Motion and Control** for this participant meant first of all finding out how the machine that monitored his blood sugar levels worked. Then he had to work out the amount of energy expenditure that was required to keep his blood sugar levels in balance:





*Figure 5: Attempting Balance*

I was trying to get some balance with my manual work and trying to get some balance with my blood sugars. But I had those testing strips, and I don't know what was wrong with it but every time I tested myself it was 13, oh man I was going for runs and jogs, walks and that, and putting in more manual work but still up to 13 eh. So I was finding out what works aye and so actually those little batteries, those little testers that you put in it. I thought that could be the crook part eh, so I got the new strips now and it's reading OK again, it's 4.8, 5.1. (F: 1; 27)

In the next excerpt, *finding what works* for Participant C meant becoming sufficiently familiar with the physical signs and symptoms of a high or a low blood sugar level and being able to respond appropriately. Trusting his instincts and reading the physical signs leads this participant to *finding what works* in order to assess his situation, and then to fix it. Deciding if he needs to sit down and rest or to take a sugar cube is attempting to balance his blood sugar levels. To make this judgement requires comprehension of his blood glucose readings and then making the correct physical and intellectual response. This response requires the correct timing and the physical motion of taking some action. By ascertaining what action to take this participant is attempting some balance in time and motion to effect some control of his blood sugar levels:

But I was feeling the signs and finding what works because when my sugar is high, I test it and sure enough its high I can feel it, it feels like, weak, my knees get a bit weak, and then I have to sit down and rest it, that's the sign and I can fix it. But sometimes it means that my sugar level's too low so I have to act fast to take a cube of the sugar thing they give me, you know I got it from the nurses, they said 'Oh you take it when you get to that stage but you've got to eat something after that, anything, a biscuit or something'. So I take one and then I eat something and that fixes it for me. (C: 1; 16)

While Participant C found the advice of eating something when his blood sugars were low worked for him, *finding what works* while **Attempting Balance in Time and Motion and Control** was different for each of the participants.

The following excerpt from Participant A shows that trying to follow the same advice about snacks was an unpleasant experience. *Finding what works* for Participant

A was to have a glass of lemonade instead of a snack and he reports finding that this worked while **Attempting Balance in Time and Motion and Control**:

But they do say you should have a snack or something but no I just have the glass of lemonade and I'm good as gold after that and that will carry me on until I get out of bed, I mean it's no use trying to put a snack down for the sake of that if you can't eat it because there's nothing more unpleasant than trying to stuff something down your throat when your body doesn't want it sort of thing. (A: 1; 20)

While most participants are **Attempting Balance in Time and Motion and Control** through *finding what works* in diet and exercise; another dimension of *finding what works* is through negotiation. Participant D talks about negotiating for time and control over his own treatment in an effort at **Attempting Balance in Time and Motion and Control** and negotiating with providers to give him a stronger oral diabetic agent instead of going on insulin helped this participant to carry on:

Then in 1996 I was still on tablets, and still safe from 1974 and the Dr said no more tablets you may have to go on insulin. I told them the story of the insulin and that it didn't seem to work for my family and that I don't believe in it. I said could we stick on the tablets just give me a stronger strength. So the Dr said 'we will leave you on tablets' Glucophage and instead of Dianeal it was Blubentacide or something. But they gave me a stronger strength 850 and that helped me to carry on. (D: 1; 17)

The strategy of **Making Some Changes** by *leaving things out and leaving things behind* led to **Attempting Balance in Time and Motion and Control** in their lifestyle. As the following excerpt will show for A, leaving out some units in his prescribed insulin dose was, in effect, taking some action and the action depicts motion by *finding what works* for participants **Attempting Balance in Time and Motion and Control**:

See when I first started they told me I had to have just a certain number of units so I stuck to it and at times when I shouldn't have taken that much I could have lessened it but they never told me this, so I was stabbing myself with the full dose all the time, having discomfort because of it. (A: 1; 22)

Then I started finding what works by and leaving some units out it and I felt OK as long as I don't leave too much out 'cos it could knock me out altogether, but you see I was trying to balance the dosage with what I was eating and drinking. (A: 1; 22)

## Summary of Stage Two

In the first stage of their managing process participants carried on regardless with all aspects of their life, suspending the time and the motion and the control needed to manage their blood sugar levels. They continued this way until bad things started happening to them or their friends. The days of *suspending time and motion and control* in the first process of **Carrying on Regardless** for participants were brought to an end with **Experiencing Bad Things** in this second stage. *Counting the cost and feeling the loss* while **Experiencing Bad Things** found participants in the context of needing to attach blame. They found this in the contextual conditions of **Finding the Fault Line** and *looking at the man in the mirror*.

**Finding the Fault Line** and *looking at the man in the mirror* involved self-revelation that lead to the actions and interactions of **Engaging With Self and with Others**, and *engaging with the man in the mirror*. **Engaging with Self and Others** also depicts gaining knowledge and making connections with their previous attitudes and behaviours that were brought to light from *looking at the man in the mirror*. Making these connections after **Experiencing Bad Things** catalysed participants into **Making Some Changes**. The strategies of **Making Some Changes** were strategies of *leaving things behind and leaving things out* like doctors, friends, their lifestyle and behaviour. The outcome was **Attempting Balance in Time and Motion and Control** by *finding what works*.

*Finding what works* was an action process of **Attempting Balance in Time and Motion and Control** in their treatment, exercise, and diet to keep their blood sugars at acceptable levels. Keeping their blood sugars at acceptable levels involved an attempt at balancing the time and the motion and the control that was needed in all aspects of their lifestyle, and they did this by *finding what works*. **Attempting Balance in Time and Motion and Control** to enable **Carrying on with Life and Living** was the outcome of this second stage for Part-Europeans managing Type 2 diabetes.

## CHAPTER SIX: BALANCING, UNBALANCING, AND RECOVERING BALANCE

---



Figure 6: Bad Moon Rising

## Introduction

As time passed and circumstances changed in their lives, some of the participants began to see a **Bad Moon Rising**. The causal condition that moved participants into the third stage of their managing process was **Bad Moon Rising** and *seeing trouble on the way* in the form of going to hospital again, going on dialysis, losing limbs, and losing eyesight. The main problem experienced by the participants was how to carry on with life and with living. The desire to carry on with life and with living regardless of their diagnosis was found in the first stage of their managing process. In the second stage participants began **Experiencing Bad Things** with the outcome of taking action by *finding what works* in **Attempting Balance in Time and Motion and Control**, which was made up of strategies and actions that participants did to enable them to **Carry On With Life And With Living** which was their main concern.

In this third stage of **Bad Moon Rising**, the participants' main concern still revolves around how to **Carry On With Life And With Living**, and they attempt to resolve this problem in the contextual conditions of **Seeing Through the Looking Glass Widely**. **Seeing Through the Looking Glass Widely** uncovered *wider structural conditions* and their own sociocultural behaviour norms that were part of *the Pacific way*. This led participants into actions and interactions of discovering the visible effects of diabetes and **Attaching Face and Form** to an enemy that was previously invisible. Once participants were able to attach face and form they began *engaging with the enemy*. *Engaging with the enemy* led to strategies of **Straddling the Line** between Western and traditional medicine that produced the outcome of *experimenting with treatment options*, and *experimenting with diet and exercise* in an effort to maintain a balance in their blood sugar levels. Experimenting with these options caused the outcome of

balancing, then unbalancing, and recovering balance with their blood sugar levels as they attempt to resolve their main concern of **Carrying on with Life and Living**.

The conditions, actions, interactions, and strategies of the participants in this third stage of their managing process have the outcome of **Balancing, Unbalancing, and Recovering Balance** – not only in their blood glucose levels, but also in all dimensions of their life while they attempt to **Carry on with Life and Living**. The identified main concern of **Carrying on with Life and Living** was resolved through the basic social and psychological process (BSPP) of **WALKING THE LINE**. **Balancing, Unbalancing, and Recovering Balance** is visually represented in Figure 6, p. 130.

### Stage Three Paradigm component

Table 28: Stage Three: Balancing, Unbalancing and Recovering Balance

Stage 3	Categories	Sub-categories	Codes	Sub-properties/ concepts
Causal Conditions for progression over time	<b>Bad Moon Rising</b>	<i>Seeing trouble on the way</i>	Compounding Health Problems	<i>Going on dialysis Going to hospital again Losing limbs Losing eyesight Identifying new problems in diet, treatment, exercise, and blood sugars</i>
Contextual conditions	<b>Seeing Through the Looking Glass Widely</b>	<i>Uncovering wider structural conditions</i>  <i>Identifying the Pacific way</i>	Seeing Wider Sociocultural Structures In Relation To Past Difficulties  Identifying Own Socio- Cultural Behaviour Patterns And Norms	<i>Language difficulties Perceiving shame and stigma Needing assistance, counselling, and automatic referrals to own people Wanting relationship Chop chop mentality Carrying over mistrust Going against the grain Social scripts Socio-economic difficulties Not taking things seriously Fiji attitude</i>



Actions/ interactions	<b>Attaching Face and Form</b>	<i>Engaging with the enemy</i>	Discovering Uncovering Recognising  Staving off the enemy	<i>Identifying the silent invisible face and form of the enemy - hypoglycemia. Grabbing it first Finding ways to compensate</i>
Strategies	<b>Straddling the Line</b>	<i>Balancing choices Self-determining</i>	Taking from both  Choosing	<i>Working in partnership for balance and control Making concessions Negotiating further treatment Collaborating with providers</i>
Outcomes	<b>Carrying on with Life and Living while Balancing, Unbalancing, and Recovering Balance</b>	<i>Experimenting with dietary control  Experimenting with treatment options  Experimenting with exercise</i>	Learning Limitations  Attaching Changes	<i>Adapting to change Making choices Reading signs Monitoring signs and symptoms Balancing diet Attempting restrictions Going high &amp; going low Recovering lost ground</i>

Table 28 shows the processes of the third managing stage. I break down and discuss each section in turn, beginning with the first segment of stage three, as shown above.

*Table 29: Stage Three: The Cause: Bad Moon Rising*

Paradigm component	Category	Sub-category
Causal Conditions for progression over time	<b>Bad Moon Rising</b>	<i>Seeing trouble on the way</i>

### **The Cause: Bad Moon Rising**

**Bad Moon Rising** is the theoretical category that conceptualises the progressive conditions that propelled participants further into another stage of their managing process. As previously mentioned, when describing the term and sub-category *hitting it*, Part-Europeans have expressions unique to their culture that portray actions or emotional states (Simpson, 1974). ‘Must be the moon’ is a turn of phrase used to describe a person who is behaving badly. ‘A dark moon’ is an expressive omen of bad weather or a prediction of trouble. ‘Watch out for the moon’, is often used in a teasing

cautionary manner. These sayings originated from the earliest times when the seasons of life revolved around the phases of the moon and their influence on tides and plant life, emotions, and human behaviour, as well as their ability to warn of danger. The conceptualisation of this category was taken from the following excerpt depicting the premonition that something bad was going to happen:

That was a bad moon, and sure, trouble came. I collapsed at work they took me by ambulance. When he came they were just wheeling me out to the ambulance. He said I hate that one of these days I will be sitting home they might come and tell me, like you walk out of this house and you mightn't come back. I said just leave it in God's hands if that's God's will. Well this right leg here is deteriorating – the arteries are really blocked and Dr \* explained that my arteries are all narrowing but he said it has not been possible to touch my leg at all. And I said what do I do then, he said oh bear with us and we will see you every six months and just take painkillers. (H: 1; 20)

**Bad Moon Rising** is also the title of a song from Credence Clearwater Revival. This song portrays a bad moon rising as a portent for trouble on the way. **Bad Moon Rising**, for many participants, was going to hospital again. The portent of trouble on the way was seen as the threat of further amputations:

First time I was admitted to hospital because one of my toes had gone black and they had to take the toe then that was a bad moon, that one. When I was admitted to hospital the second time, that was trouble, and also in the foot 'your foot is going to start to deteriorate then you will have to have it amputated' they said. (D: 1; 14)

The delay of referrals while his eyesight was deteriorating was a **Bad Moon Rising** for this participant and resulted in blindness:

Now I have lost an eye. If we had been referred earlier I would still have my eye. Now that was a bad one because it could have been saved if he wasn't so slow in giving me appointments. When he told me a year ago we might have done something but your eyes are too far gone now and we can't do anything. You see, bad moon, too much delay while my eye was deteriorating. (B: 1; 32)

Participant G's deteriorating eyesight and the threat of impending blindness is expressed as 'a dark moon coming':

My eyesight is on the way out, dark moon coming now, but you see it's my fault. (G: 1; 34)

*Table 30: Stage Three: Causal sub-category: Seeing trouble on the way*

Paradigm component	Category	Sub-category
Causal Conditions for progression over time	<b>Bad Moon rising</b>	<i>Seeing trouble on the way</i>

***Causal sub-category: Seeing trouble on the way***

The causal category of **Bad Moon Rising** in this third stage of the managing process encapsulates the properties of the sub-category *seeing trouble on its way*. This sub-category is derived from an in vivo code that was used in reference to participants being able to see a health problem arising from another, or 'riding in on the back of another' which is revealed in the following excerpt:

I carried on until I was admitted to hospital again with my foot. And riding on the back of that was going on insulin. The doctor said to me 'you know you will have to go on insulin'. 'This is the first sign that your circulation has got worse, your foot is going to start to deteriorate then you will have to have it amputated'. 'You have to consider seriously going on insulin,' they said, so I went on insulin. (D: 1; 17)

A **Bad Moon Rising** for this participant signalled the threat of further amputation and *seeing trouble on the way* is going on insulin. With the threat of deteriorating circulation and further amputation, the continual refusal of insulin was no longer an option. During this stage of **Bad Moon Rising**, participants experience a cavalcade of health problems. Their health deteriorates and participants are *seeing trouble on the way* as problems begin to compound one upon another:

Now, trouble was on the way this time with my eyes. The haemorrhage was so bad, that they had to give me 3,000 blasts. The Dr said 3,000 and he said you couldn't go any further in because then I would be touching the delicate part of my eye, the retina. Then he said to me 'if it works you should be okay for five years, after five years I can't guarantee whether your eyesight would be still okay'. He gave me five years, and I will be completely blind if the damage continues inside. But I know myself it's deteriorating because when I read I am finding it difficult, I just see caricatures. I cannot even read them, I have to bring it all the way up here and then wait for a while and the light has to be certain and not too bright. At night if it's dark, even going up the steps I am completely blind. (D: 1; 24).

For other participants *seeing trouble on the way* was going on dialysis. At first resisting the thought of being attached to a machine, Participant A was eventually talked around to the idea of it through his desire for a longer and normal life:

That was trouble, when they told me I had to go on dialysis, they sent some people out to see me and tell me about it, talk some sense into me because I didn't want to, I said 'what's the point? I won't be around much longer anyway'. I cried and resisted it until they drove some sense into me. I didn't want to be attached to a machine, it's not the way to live a normal life but then as the doctor said, 'going on dialysis will give you a longer life'. 'At least in this way you can live a normal and a longer life'. (A: 1; 56)

Nearly dying was a **Bad Moon Rising**. *Seeing trouble on the way* was going to hospital again, and losing toes with one problem compounding upon another, **Bad Moon Rising** was the threat of death and further amputations for Participant E:

The doctors found out my second toe was infected and it had reached the bone, and then I had two operations, and they took my toes. I went for a scan and the scan showed the infection has touched my bone and the doctor said 'I don't know if we can save your legs'. The recommendation in my notes was amputation. They said they were going to take it and I said yeah to remove and signed the operating paper. I agreed with it to just take it out to save the hassle and then the head surgeon came and said 'oh I can save your leg for you'. When I woke up in the recovery ward it was still there. The doctor said 'No I did my best, I cleaned your leg and the joint'. I could have lost my whole leg; it was killing me, I could have died. (E: 1; 37)

Table 31: Stage Three: Contextual Conditions: *Seeing Through the Looking Glass Widely*

Paradigm component	Category	Sub-category
Contextual conditions	<b>Seeing Through the Looking Glass Widely</b>	<i>Uncovering wider structural conditions</i> <i>Identifying the Pacific way</i>

### Contextual Conditions: Seeing Through the Looking Glass Widely

In the first contextual stage participants found the disease **Lacking Face and Form** because of its invisibility. Upon progression of their disease to the second stage of the managing process participants needed to find the fault line and they attach blame to doctors and insulin for **Experiencing Bad Things**, and to themselves when *looking at*

*the man in the mirror*. It is not until their disease progresses further to the third stage of **Bad Moon Rising** that they look further afield. The category **Seeing Through the Looking Glass Widely** is the conceptualisation of the overall process that participants went through as they progressively identify wider social structures that they perceived as hindering or enabling their managing process.

**Seeing Through the Looking Glass Widely** is more than a reflective image of their faces that they encountered in *looking at the man in the mirror*. Seeing is gazing rather than looking; yet it is even more than gazing, for it takes in the wider surrounding background. When one gazes into a looking glass one captures and holds the reflection of familiar features. Seeing is the revelation of recognising that the familiar is more than the sum of its parts. Like the features that makes up the face so too is our present experience a sum of our past. While participants are **Seeing Through the Looking Glass Widely** they are taking in both the present landscape and their backgrounds from whence they have come.

In the category **Seeing Through the Looking Glass Widely** participants perceive the familiar anew as they capture not only the familiar behavioural patterns reflected in the second stage when *looking at the man in the mirror* but also the background and origin. Seeing is more than looking, one looks for a specific image or thing in a mirror, for example when combing hair, whereas seeing is to look for and find something. Seeing widely is the imagery of wider impacting issues that are around and behind and part of our own reflection. The category **Seeing Through the Looking Glass Widely** is the conceptualisation of these conditions and contains the sub-categories of *Uncovering wider structural conditions* and *identifying the Pacific way*.

In this stage of the managing process participants begin identifying wider structural conditions along with their own sociocultural behavioural norms that they perceive as

being detrimental to managing. In this stage of the process a semblance of visibility appears, as in the following excerpt when Participant G talks about the contextual conditions and begins **Seeing Through the Looking Glass Widely**:

When I started breaking off from drinking I could see what I didn't see before, when my body was drunk all the time, but after I stopped drinking it was like I could see widely. (G: 1; 24)

*Table 32: Stage Three: Contextual sub-category: Uncovering wider structural conditions*

Paradigm component	Category	Sub-category
Contextual conditions	<b>Seeing Through the Looking Glass Widely</b>	<i><b>Uncovering wider structural conditions</b></i> <i><b>Identifying the Pacific way</b></i>

***Contextual sub-category: Uncovering wider structural conditions***

When they were **Seeing Through the Looking Glass Widely** participants referred to broader structural factors that they perceived could be helpful to their managing process. One of the factors identified was the need for counselling upon diagnosis and during transitions across changing health conditions, and to assist with lifestyle behaviours. The need for a counselling process and an automatic referral agency to follow up participants in their own home would facilitate coming to terms with, and fully understanding, the wider ramifications of their diagnosis:

I don't think that there is a wide enough structure in place to make sure that you fully understand what the diagnosis really means and to help you through that phase of not really believing that its happening sort of thing. At the moment it's just up to the GP, but they should have a type of referral agency to a counsellor or people trained in that sort of thing to automatically come and visit you. If they can't do that then the GP, when they first get the person in, should sit the person down and really talk to them to try and draw their attention to the fact of what they have and I would even say go as far as putting fear into them. If you just say 'you've got diabetes' and don't explain anything, they go away. It's like, I've got a headache, it will go away not realising when you get diabetes it's with you for the rest of your life and you can only control it you can't wipe it out altogether. (A: 1; 22)

All participants in this study were fully conversant in English yet detected the need for wider structural factors to take into account the unfamiliarity of English for others. They stressed the need to refer people on to their own Pacific people to explain about the disease and its management in their own language. Participants urged for referrals to be made to Island doctors and nurses who would be able to explain everything in a language that they understood:

And I mean the material is there to be read but a lot of these people don't read it. A lot of the Island people probably don't understand English that well and need something to be put out in their own language. Even then if it's printed in their own language would they read it? I don't know whether that's been done but I've never seen anything I find that works, because my mum-in-law's like that, she won't read anything. So when she started going to our doctor I thought, there's going to be a problem here explaining to mum, and when she attended the Tongan doctors she understood what she had to do and she changed straight away. She went to the Island doctor and seemed to understand him better and she really clamped down and did what she had to do eh I mean if they could understand the English properly then it's alright but to be spoken to them in their own language it's even better. They get the message. (A: 1; 23)

Participants in this sub-category of *uncovering wider structural conditions* recount the shame of disclosure coupled with the shame of being classed as dumb Islanders. The following excerpt also makes reference to the GP as the first line of defence with perceptions that doctors were not giving sufficient information and not referring on:

When I go in for my dialysis treatment the majority of people there are all brown skins, and I can understand why they think this is a Brownie's disease. Yeah but I also believe that the GP is the first line of defence but they give insufficient information and are not pushing it any further, not telling people how serious it can become and not referring on. They just have a 'take this and go away' sort of attitude but they should recognise that they are not specialists in the field. Also I think that a lot of these GPs think 'oh they're just dumb Islanders they can't follow directions'. They should tell them of the dangers. (A: 1; 27, 29)

*Uncovering wider structural conditions* participants made references to the shame of being classed as the burdensome face of diabetes:

You know it makes you feel like you're a burden to others when they talk about how the majority of diabetes is in the Pacific Islands and Maori and how we are costing the tax-payer all these dollars. (F: 1; 52)

There is a stigma of diabetes as being the Brownie's disease and participants talked about how this makes them feel. Participants begin *uncovering wider structural conditions* as they recount the shame of disclosure when there is stigma attached:

People think that this is just the Brownie's disease, you read in the paper and you hear it on radio about how Maori and Pacific people have the highest rate of diabetes and it makes you feel stink. I know that a lot of people from Fiji have diabetes but they won't talk about it because of the shame. They don't want anyone to know. (F: 1; 54)

Participants perceive that the wider social structures of the media and others' perceptions of diabetes as a Pacific Island and Maori disease makes it a dirty word, giving them extra reasons to ignore it and carry on as usual:

Some people from Fiji just refuse to accept the fact that they are diabetic. They think it's a real dirty word, they don't want to know about it; and I know a lot of them do have diabetes, don't want to know and don't read, and unless someone else talks to them about it, someone they know who has it, they are going to ignore it and just carry on. (A: 1; 19)

Participants referred to being a Pacific Islander with diabetes and the perceptions that all Pacific Islanders were overweight:

So you don't have to be a big, oversize, overweight person to have diabetes, it's just something that just happens and you're the unlucky one. I don't know any of us from Fiji that is overweight. (F: 1; 40)

While some participants cited the lack of referrals, other participants identified the lack of relationship with GPs and the inability to express themselves as hindrances to getting treatment tailored to their needs. Participants stressed that finding a GP and services that they could relate to were crucial factors in maintaining self-care. Participants identified that they responded to relationship. The building of an interpersonal relationship with their primary provider was the most important factor identified by participants to help foster successful self-management and self-care:



You see, the relationship has to be already there so Dr \* feels comfortable in talking straight, you know, telling the facts straight out, but that can only happen if the relationship is already there. (H: 1; 13)

One aspect of the relationship that was appreciated was the friendly camaraderie, on the same level of matesmanship and similar to ‘bro’ and ‘son’, which is how Maori and Pacific Islanders relate to each other. This type of relationship would allow them to ‘talk with’ rather than to be ‘talked at’ and therefore enable honest expression of attitude, opinion, and uncertainty. The inability to express difficulties or ask questions was attributed to the lack of relationship:

You know the first specialist who was uninterested treated me like a dumb Islander and was always falling asleep while I was talking to him. Also he talked at me, whereas this one I have now talks with me. He is marvellous he talks with me and says ‘How are you my son?’, even though he is younger and ‘Come in, come in bro’. He is friendly and on the level. Whereas the other guy talked at me, this guy is more approachable, I could sit down and talk to him instead of being talked at. (A: 1; 29)

When *uncovering wider structural conditions*, participants begin **Seeing Through the Looking Glass Widely** and identifying wider structural issues such as the lack of knowledge around the signs and symptoms of diabetes and the lack of an earlier diagnosis. These are seen as contributing factors to what they refer to as the ‘chop chop mentality’ occurring in Fiji:

There is a type of ulcer, they used to call it, once, *mate-ni-ose* and it doesn’t heal and next thing we know its gangrene. Yeah that’s a type of diabetes yes. It’s a sore, like an ulcer, big ulcers that just get bigger and bigger and it actually is a form of diabetes. I don’t believe that doctors are picking it up they just have this chop chop mentality sort of thing, yeah just chop it off. (B: 1; 37)

Participants identified that the ‘chop chop mentality’ in Fiji results in a lack of trust in services. This lack of trust is carried over to New Zealand and is given as a reason why many people from Fiji disengage from maintaining any connection with the services in New Zealand:

I would go as far to say that there is a large majority of people back in Fiji with diabetes, who don't know they have it and the doctors are just not picking up, so they don't think the diabetes is a big thing down there, but it is taking off, it is. People were dying back home and having things chopped off and they never put it down to diabetes and so they don't trust the services and don't see the doctor when they come over here either. (G: 1; 23)

Like Participant B, many other participants also referred to the 'chop, chop, mentality' and the 'chop, chop doctoring' that is happening Fiji:

Once they find out you've got diabetes or sores on your toes and that, the only thing they know is chopping your legs off, first thing is the knife eh, they just cut off everything man. (G: 1; 17)

When *uncovering wider structural conditions* all the participants knew people who were having toes and limbs chopped off in Fiji and bemoaned the wider structural lack of services:

You know \*\* well he just had his two toes cut off just last week. He just rang up today; he rang up he's in hospital. In the private hospital but still the services are lousy. The problem is, like doctors in Fiji like, no-one's ever taken them to the cleaners yet. They need to straighten their ideas out a bit eh, you know there's too many mishaps that happen there and no-one ever faces up to them you know, and threaten them at least with you know, to take a bit more care about their patients eh. (F: 1; 18)

This participant puts it succinctly when he refers to their fears of the hospital where they perceived people only went in when they were ready to die. The following excerpt talks about the 'vale ni mate' which translates from Fijian into 'house of death':

'Cos every place you go to in Fiji man and people you speak to eh, and they're dead scared of going to the doctors, they call it 'vale ni mate' because you go there and die, you know, like \* Hospital, that's really degrading. They haven't got any testing; the only thing they know is chopping your legs off. (F: 1; 19)

Participants talked about the type of treatment and care they received in Fiji. The fear and mistrust carries over into all other contacts with doctors here in New Zealand. Participant D restates the imagery of the 'vale ni mate' by saying, 'whoever goes there you just get ready for the mats to wrap them in and carry them out'. Mats are

customarily used to wrap the dead in and bodies are carried out in a traditionally woven mat. In other words they only go to hospital when all else has failed and then they go there to die:

If you go to the central hospital, most of the doctors are graduates from the Medical School, very few from New Zealand and Australia because the ones that stay are there because of their bond to the Fiji Government, so they have to be there. The attitude amongst Fiji people is they only go to hospital when they are too far gone. Because we only send people there when we can't treat them in the traditional way. So whoever goes there you just get ready for the mats to wrap them in and carry them out. (D: 1; 61)

Participants were able to recall a litany of amputations due to what they perceived as mismanagement by health personnel, mainly doctors in Fiji. The suspicion that doctors are misdiagnosing and cutting off digits and limbs unnecessarily is a suspicion that hangs over all interactions that they have here in New Zealand, and through expecting the same sort of attitude, there is a fear:

It's fearful what is happening, you know \* well he lost his toe eh, that's Fiji and when he came over the doctor said they could have done nothing. Doctors here said he would have still had everything, didn't require losing a toe or anything, I don't know which toe they took off but he had the same thing when he got seen to. The family went down and brought him up but too late, in Fiji they took off some toe and when he got seen to here they said 'Ah nothing wrong with you'. The x-rays and all of that didn't reveal anything. (E: 1; 21)

Another dimension in the category of *uncovering wider structural conditions* is the unaccountability of doctoring in Fiji where migration after the coups has seen most people leave for countries where they can be paid a wage that is commensurate with their training. Replacement doctors have come from countries where English is not spoken, and when **Seeing Though The Looking Glass Widely**, participants see a reflection of past perceptions of healthcare that they have carried over to the present:

In Fiji everyone's gone, most people have gone, so in the hospitals people can't speak any languages that we speak, you know [English, Hindi or Fijian] they can't speak English that's for sure. Someone else from Fiji that I know said to me this doctor said to him 'me chop chop chop, me chop chop chop' that's all he could say. I thought, 'You're not

chopping me mate'. I probably distrusted doctors from that you know.  
(E: 1; 45)

Participants identified the socio-economic hardship of affording what is touted as the ideal diabetic food. Food identified as ideal for management of blood sugar levels was identified as beyond the reach of affordability for participants:

Well I think the diabetic food in New Zealand, I think it's so blooming expensive you know and you know it's not even to our taste, you just got to try and do with what you can afford eh. (F: 1; 14)

But then like I said again diabetes food you are meant to go and buy. Crickeys, its very expensive. You just look at diets, you go on a diet, the food that you have to have on a diet is pretty expensive so if you can't afford it there is no way you gonna buy it, you just go get normal meat and eat it. (G: 1; 43)

Another dimension of this category was the urge for more research into Island food and traditional medicine to prevent the unnecessary chopping of limbs and going on dialysis. More research into the type of food that Islanders eat was seen as a necessary prerequisite for managing their dietary habits and as a cost-saving measure for long-term complications:

I think if more research is put into this diabetes I think it might save a lot you know, a lot of money in future, you know like a lot of people are getting things chopped off and unnecessarily getting to the stage where they have dialysis and that eh, if they could just get it a bit earlier. Well I think more research into like the sort of food you eat and stuff like that you know, at least try some of the Island food because the majority of Islanders are getting it. (F: 1; 34, 35)

*Table 33: Stage Three: Contextual sub-category: Identifying the Pacific way*

Paradigm component	Category	Sub-category
Contextual conditions	<b>Seeing Through the Looking Glass Widely</b>	<b><i>Uncovering wider structural conditions Identifying the Pacific way</i></b>

***Contextual sub-category: Identifying the Pacific way***

Participants talked about how their own sociocultural norms were barriers to exercise. They made references to how the sports facilities available would not be of

any use, as older Pacific Islanders are not accustomed to baring their bodies in swimsuits. Participants all made references to the unlikelihood of finding Islanders of a certain age bracket jockeying for space in a swimming pool, when they are used to wide open spaces. There were many references to social taboos of being half naked in a pool with strangers. Participants make a similar reference to the swimming pools and how crowded they are and how this goes against the grain for Pacific Islanders:

I've been told go to the pools if you can't walk on the road, but I just can't, the pools are not like our pools back home it's never empty, over here you walk in you have to find a space to jump in the water and there's people everywhere I said, No that's not my scene If I have to do the walking. I'll buy a treadmill put in the house and I'll do it that way (A: 1; 25).

You'll find that with the Pacific Island style of life going to the swimming pools is just not what they do. I mean you see the island people go to the beach, they fully clothed sort of thing, they're not ones to strip down to a brief thing and jump into the pool with all these other people; it just goes against the grain for us. No. So that's why I put down the fact that this is why when they start reading statistics and they say Pacific Islanders are the greatest number of diabetics, it's only because of that fact, I reckon. (A: 1; 26)

The concept that holds the sea as a source of food and nourishment does not easily translate over to holding the sea as a place of exercise:

You know there are facilities, I know that, but at my age who wants to parade around in a swimming suit at the pools, that's not our way. I'm reasonably fit, I'm not overweight, but you would never catch me in a pair of togs in public like that. Especially when we are used to the sea and wide-open spaces. We use the sea for our food and in getting our food we get the exercise that we need, you know like going out on the reef and that. (F: 1; 49)

The following excerpt shows a drinking pattern among both the male and female participants that came up constantly throughout the data:

What made it hard was because the Part-Europeans in Fiji, especially the ones who had Government positions, all drank, it was the thing that everyone did in Fiji. You know, you drink, you go to the club, leave there about two in the morning or three, you get used to it eh. Alcohol in your system, you still can drive, you still can go anywhere in Fiji. I even tell the cops 'run away, go and do something'. Thursday night or afternoon after work, and Friday night everybody party full swing till Saturday morning. (C: 1; 17)

Participants who immigrated to New Zealand did not leave these drinking patterns behind. When **Seeing Through the Looking Glass Widely** participants begin *identifying the Pacific way* and identifying sociocultural drinking patterns in relation to their own past difficulties in managing their disorder. Alcohol was pervasive within their social habits and work culture and not easily relinquished upon migration:

Yeah I was drinking too much spirits and when I came here the doctor said to me 'well you have to give that up because your liver's withered, gone'. My liver was withered or gone and I said 'well give me something to take to cure it'. He said 'no son, there's nothing to cure that, if you want to live you stop drinking' which I did for two years, never touched it. Very hard, especially coming from Fiji used to drinking everyday, everyday. (C: 1; 11)

For the male participants, social drinking was an acceptable acting out of socially predetermined scripts of prescribed or preferred masculinity:

A lot a people you know would see me drunk every Friday, every Saturday night, and driving. When I come to think of it – I think of how stupid people can be, us from Fiji especially the Part-Europeans seem to have that alcohol tendency eh. Yeah we just carried on hitting it, no problem; there was quite a little group of us eh. A group that really hit it all the time. (G: 1; 10)

Drinking alcohol pervaded the behaviour of even the younger male participant as seen in the following excerpt:

I was an alcoholic see and I couldn't live without it, I didn't want to live without it, that's why I didn't get my testing equipment and I carried on drinking for a long time because I couldn't live without it and all my mates were doing it too. It was very hard to give it up. (G: 1; 25)

The culture of heavy drinking, with the attitude of never giving in to adverse circumstances, was socialised into the general psyche of what it is to be a man, and these behaviours were seen as strength:

I went there and I've had about four, five operations now, wake up just have a couple of Panadol. Panadol after a big operation! (E: 1; 24)

Stoicism and hard drinking is a repeating history for many participants as many of them recount the pattern of generational drinking:

The whole family died from alcoholism, you see. \* died, he was an alcoholic too but it was hard just for me to give it up altogether because \* was drinking a bottle of gin, \* well she was drinking too, just about a bottle of gin, in two days – a 40 ounce gin every two days. (C: 1; 18)

When **Seeing Through the Looking Glass Widely** participants realise that they have a problem with saying no; that they are used to providing answers and agreeing with what they think someone in authority wants to hear. In **Seeing Through the Looking Glass Widely** they are *identifying the Pacific way* and are seeing that this is ‘what we were brought up to do’:

The problem is with our people is that we tend to say what we think others want to hear, it’s this authority thing that is part of what we were brought up to do, yeah I used to be like that, ‘yes sir, no sir three bags full sir’. It’s like I didn’t want to hurt their feelings or piss them off, like we find it hard to say ‘no’ or ‘I don’t agree’ but then we go away and do what we wanted to do. (F: 1; 51)

While **Seeing Through the Looking Glass Widely** participants begin to recognise origins of behaviour:

There is a Pacific Island hang-up in Fiji, because of our Colonial past, that anytime we deal with Europeans or Caucasians we feel inferior. It is a programmed thing. But with me it was different. I felt equal because of the type of job I was doing, they all have to come to me if they want anything. (D: 1; 50)

Participants identified that the invisibility of diabetes was aided and abetted by the Pacific way of being laid back and not taking things seriously. Participants are *identifying the Pacific way* as the manner of approach to life as a Part-European. Participants refer to this as the ‘Fiji attitude’. This ‘Fiji attitude’ is identified as not being serious about doing anything until something ‘really bad happens’. Having limbs chopped off or losing sight and losing friends in the process of **Bad Moon Rising** was severe enough for the perception that ‘something really bad’ was happening and the management of their disorder needed to be taken seriously:

It's our Pacific thing, our Fiji attitude, it's laid back and not being serious until something really bad happens. I had that Fiji attitude 'cos nothing was wrong with me, no injury nothing, so I just carried on until I had these toes off. (E: 1; 23)

Table 34: Stage Three: Actions/Interactions: Attaching Face and Form

Paradigm component	Category	Sub-categories
Actions/interactions	<b>Attaching Face and Form</b>	<i>Engaging with the enemy</i>

### **Actions/Interactions: Attaching Face and Form**

In the first contextual stage of **Carrying on Regardless**, participants referred to diabetes as the invisible enemy **Lacking Face and Form**. Then in the second stage the focus was not so much on the diabetes as on themselves and the doctors in **Finding the Fault Line**. Now in the third stage, the category of **Attaching Face and Form** depicts the actions and interactions of the participants in this third stage of their managing process as they first recognise the face of the enemy and discover the form of how the enemy manifests in their physical bodies. The category of **Attaching Face and Form** captures the codes of uncovering and recognising. The sub-category of **Attaching Face and Form** is *engaging with the enemy*.

The sub-category of *engaging with the enemy* was derived from the participants' words – 'an invisible enemy' and 'a thief in the night'. 'The enemy' is the abstract conceptualisation of an adversary, the attacker of health, the silent, invisible assassin of death, and one that kills silently. **Attaching Face and Form** denotes the figurative face and form of the adversary and it is not until this third stage of **Bad Moon Rising** that participants begin discovering and recognising the enemy.

In this third stage of **Bad Moon Rising** a semblance of visibility appears, as in the following excerpt when Participant G talks about being his own worst enemy through not recognising the form of diabetes while he was drinking. Breaking off from drinking enabled G to recognise the effects of diabetes and to recognise that he was his own



worst enemy. This recognition facilitated **Attaching Face and Form** to the enemy of diabetes that was previously invisible:

When I started breaking off from drinking the form of diabetes started to show up in my body from the high sugar, you know I was my own worst enemy when I was drinking, it stopped me from recognising what it was doing to my body but after I stopped drinking the form of diabetes began to show. (G: 1, 25)

While heavy drinking by many of the male participants brought about **Bad Moon Rising**, heavy drinking also camouflaged the face and the form of their disease. Participant G referred to ‘breaking off from drinking’ and ‘the form of diabetes began to show’. Other male participants, like C in the excerpt below, comment, ‘I had to stop drinking for a while and then it started to show’:

I knew I had the sugar disease but I still drank heavily then I got very sick, very sick. I had to stop drinking for a while and then that’s when it started to show in my body. I was drinking so much I didn’t know if it was my drinking or the sugar making me sick but after I stopped drinking, I knew it was the sugar. (C: 1; 7)

It was not until participants who were heavy drinkers cut down their alcohol consumption or ceased altogether that they began discovering and recognising the effects of high glucose levels and began **Attaching Face and Form** to their symptoms.

Whilst alcohol did not mask the signs and symptoms of diabetes for the female participants, menopausal symptoms or other stressors happening in their lives prevented

#### **Attaching Face and Form:**

I thought it was the change, all the hot flushes and that I didn’t attach it to the high sugar, and the family was going through a lot of trouble too so I was stressed. (H; 1; 11)

For female participants, putting their own needs at the bottom of their priority list was common in the context of the invisibility of diabetes. Previous to her heart attack in **Bad Moon Rising** Participant H was unable to recognise the insidious invisible nature

of diabetes. By **Attaching Face and Form** she was able to put her own health needs before the needs of her family:

When I had my heart attack, I felt this pain and put it down to the stress at home. I never thought it could be a form of my diabetes, but then when they told me that my high sugar levels probably caused it to happen I recognised what it was, I said 'bugger it, they can all go to pot, why if I wasn't here they would all have to fend for themselves' and so I started eating lots of vegetables, and I made them all eat it too. (H: 1; 12)

Wounds and abrasions can very quickly turn to serious infections and ulcerate in people who have diabetes, and in the tropics this can happen much quicker than in New Zealand. In Fiji there is a type of ulcer (mate-ni-ose) that loosely translates into 'the eye of the horse', or 'horse's eye'. Participants now start to recognise these ulcers as a form of diabetes and begin **Attaching Face and Form**:

There's a large majority of people back in Fiji with diabetes who don't recognise they have it, people dying back home having things chopped off never attach the thing to the form of diabetes think its something they didn't look after, next thing we know it's gangrene, used to call it mate-ni-ose. It's the form of diabetes sore. Big ulcers gets bigger, a form of diabetes. (F: 1; 37)

Participants on insulin identified hypoglycemia as the face and form of the enemy. Problems with blood sugar levels and avoiding hypoglycemia was, for many participants, the enemy that concerned their every waking moment. This excerpt shows this:

This is what I can't seem to get right is the hypos, no matter what I do I still get hypo. The first time they gave me insulin I had a hypo and that was in hospital, it was reading 2.7 the insulin brought it down. Even when its 3.1, 3.4 – I still get hypo with that. Most of it is done around midday and it scares me. I know then that there's something there not right, I recognise that's its abnormal when I see those lights flashing. Comes and goes, comes and goes, it worries me, I see it in the toilet and looking at the septic tank, it's white and this colour comes on. (B: 1; 13)

The shakiness, weakness, perspiration, or double vision of hypoglycemia provided the face and form that participants previously found lacking. The invisibility of diabetes was now visible, it had a face and a form that they could feel and recognise:

I recognised the signs because I had been reading about all of this. When I first started off, hypos were never anything that happened all the time, but the only time I seem to get hypos is those times I forget to take my insulin before meals and remember it after I've had the meals say, so I take the insulin and I go to bed and for some reason after taking it after a meal it's no good, so round about 2 or 3 in the morning I've got to get out of bed because I'm in a hypo state you feel it because you think you're sweating and you think you're hot and you think you're cold, it just goes like that all the time, it just gives you one helluva funny feeling. Have you ever had a magnet run over your body and the hair stands up? It's like that. Like when you're sleeping you just ... you ever been drunk, really and truly drunk? Well it's that sort of feeling and you feel as if you are floating away. (A: 1; 19)

Participants feared the alteration of their thinking processes from insulin therapy, relating fear and anxiety to getting their dosage right and regulating food intake with exercise. In **Attaching Face and Form** to hypoglycemia participants began to recognise how the deficiency of glucose to the brain in hypoglycemia affected their cognitive functioning:

You have to be careful driving because you can become disorientated quite badly and even lose your cool without recognising that you are low in the sugar department. (A: 1; 20)

When it's low I can't write on the line, my hands are shaking and my brain's not working, and if I have to write I can't see the light even to sign my name, and I get very weak. (B: 1; 14)

*Table 35: Stage Three: Actions/Interactions sub-category: Engaging with the enemy*

Paradigm component	Category	Sub-categories
Actions/interactions	<b>Attaching Face and Form</b>	<b><i>Engaging with the enemy</i></b>

***Actions/Interactions sub-category: Engaging with the enemy***

By uncovering the manner in which hypoglycemia manifests itself in their physical bodies and recognising the many ways that hypoglycemia could affect their lives, participants are **Attaching Face and Form** to the enemy. **Attaching Face and Form**

enables participants to take some affirmative action as they begin **Attaching Face and Form** to hypoglycemia as the enemy to be conquered. Their actions and interactions at this stage find them engaging with this enemy of hypoglycemia, and the sub-category *engaging with the enemy* depicts the actions of participants as they find ways to stave off this enemy.

The sub-category of *engaging with the enemy* has codes and properties of ‘grabbing it first’, and ‘finding ways to compensate’. For participants on insulin the face and form of the enemy is hypoglycemia, and although they all have different ways to compensate for the lack of glucose that causes hypoglycemia, they all identify that their first action of *engaging with the enemy* was by ‘grabbing it first’. The following excerpt compares the symptoms of hypoglycemia to the stealth of a silent invisible enemy, however now the symptoms can be recognised. There is face and form to the enemy, and it can be grabbed it before it gets you:

If it goes really high you don’t feel anything, you’re still feeling good but the damage is being done while it’s silently happening. Whereas when it drops below 4, you really start falling over and get disorientated you know, very light floating feeling. Like an invisible enemy, a thief in the night, the symptoms hit you regardless of whether you are really asleep or not, and if you don’t recognise it and grab it before it really gets you, then you could go to sleep and not wake up. (A: 1; 18, 19)

Engaging with the unpleasant experience of hypoglycemia was particularly challenging for participants. Gaining knowledge in the previous stage about hypoglycemia led to fear and anxiety about missing a meal or a snack. In the absence of medical direction, and prompted by discomfort, participants begin ‘grabbing it first’ and then ‘finding ways to compensate’ for the lack of sugar needed to keep the enemy of hypoglycemia at bay. While some participants always had glucagon tablets with them, others compensated by taking coca-cola, a glass of lemonade or just plain sugar straight out of the sugar bowl. The ‘finding ways to compensate’, depended on the location and

the ability of ‘grabbing it first’ before it ‘gains too much ground’, or ‘before it goes too far’, or ‘before it gets you’. The following excerpts show this:

I have to grab it before it gains too much ground with me otherwise it’s too late and can’t do anything. That’s why I always wear this bracelet now since I had that bad episode in Sydney. (H: 1; 41)

See most times I can grab it first before it goes too far, I recognise the lights and that and I can grab it with these. Always leave them in here (jacket pocket) it’s there now if I go to the shops. I don’t go too far, I know to take one, and I never go too far, and I always have something to eat first. But if I have one here I go quickly, very quickly, in the kitchen and I’m stuffing sugar in my mouth. (B: 1; 2)

The lemonade will generally carry me through for the rest of the night, but you have to grab it before it gets you otherwise you could sleep and not wake up. (A: 1; 19)

Table 36: Stage Three: Strategies Category: Straddling The Line

Paradigm component	Category	Sub-categories
Strategies	<b>Straddling the Line</b>	<b><i>Balancing choices</i></b> <b><i>Self determining</i></b>

### Strategies Category: Straddling The Line

The strategy category **Straddling the Line** contains the sub-categories of ***balancing choices***, and ***self-determining***. **Straddling the Line** embraces the choices of some participants who refuse to go on insulin, choosing instead to use traditional medicine while taking oral hypoglycemic agents. **Straddling the Line** also embraces the choices that participants make by taking what they want from the Western way of managing diabetes while **Sticking with the Tried and True** of traditional medicine. This means that participants who made these choices are also, in effect, ***self-determining***.

There is some similarity to the category of **Sticking with the Tried and True** during the first process but upon **Engaging with Self and Others** and ***engaging with the enemy*** this category has more ***self-determining*** properties. A dictionary definition of straddling is legs wide apart or to be in favour of both sides of something, and this

conceptualises having some aspects of traditional treatments and some from the Western world.

**Straddling the Line** encapsulates the category of **Sticking with the Tried and True** in the first stage and **Making Some Changes** in the second stage of strategies. **Making Some Changes** arose through **Engaging with Self and Others** by connecting with their diagnosis and healthcare providers, gaining knowledge, and overcoming fears. **Making Some Changes** in the second stage found participants *leaving things behind and leaving things out* which is also self-determining, but in this stage it is done with more knowledge.

**Straddling the Line** in this third stage is the major category that conceptualises the sub-categories of balancing choices and *self-determining*. *Self-determining* holds the concepts of *negotiating further treatment, collaborating with providers, working in partnership for balance and control, and choosing traditional medicine over pharmaceuticals*.

Table 37: Stage Three: Strategies sub-category: Balancing choices

Paradigm component	Category	Sub-categories
Strategies	<b>Straddling The Line</b>	<b><i>Balancing choices</i></b> <b><i>Self-determining</i></b>

#### ***Strategies sub-category: Balancing choices***

The following excerpt shows how one participant, like many others, was **Straddling The Line**. She was **Straddling the Line** by *balancing choices*. She was *balancing choices* by taking what she wanted from both the traditional and the Western approaches to management and treatment. **In Straddling the Line** she was maintaining all appointments with the doctor, the dietician, and the ophthalmologist while choosing to take the Fijian medicine Kura, Layalaya and Bobosucu instead of Metformin. Choosing what to take from both treatment options was also a *self-determining* action:

I still take advantage of all the services here, I think they are the best in the world the way they look after you here, they write to you, to come to meet with the dietician, you know your appointment is made for you, you go and meet the dietician and then another appointment is made for you to meet your eye specialist but I still take Kura, Layalaya and another new one, you know the one, Bobosucu. (I: 1; 33)

Other participants also straddled the line of options while working with treatment providers in that they kept both alternatives open:

I called \* to send me some bottles of Kura, straight away. I left the Metformin soon after I got the bottles in, so I just started taking the Kura and left off the Metformin. But I go back to my doctor every now and then just to check and my sugar level is nearly always normal now with the Kura. I find even now living in New Zealand with all the medications that are available here I still find that the Fijian medicine works best for me. (H 1; 24)

Although this approach is seen in all of their strategies, the following excerpt shows there are different dimensions of this strategy. Whilst keeping to a traditional diet while making some concessions to the Western notion of a healthy eating plan, participants like C straddled the line:

I was eating a lot of rourou and Bele and all that. The coconut cream is not good for it. Like vakalolo fish and things like that, I love it but it's no good for you. See vakalolo fish, well I'll have it once a week but I notice after that it's high and I won't test it until after four or five hours, I test it and sure enough 16 so I got the layalaya and I took that. I always take that when I can get it. Probably why I was eating all that food and it never really shot up all that much, yeah maybe that. (C: 1; 19)

*Table 38: Stage Three: Strategy sub-category: Self-determining*

Paradigm component	Category	Sub-categories
Strategies	<b>Straddling the Line</b>	<b><i>Balancing choices</i></b> <b><i>Self-determining</i></b>

***Strategy sub-category: Self-determining***

Participants in this stage of the managing process were making ***self-determining*** choices as managing strategies. Whereas most participants kept their options open by **Straddling the Line** and ***balancing choices***, other participants refused insulin

preferring traditional medicine. Believing that the traditional medicine washed out the sugar, Participant C refused to go on insulin but was still *self-determining*:

Yeah well they tell me to come down, I need to go on that insulin, but you know I don't think so I do. I know when my sugar's high and I take a big glass of water, it works, but the layalaya that's the best one for the sugar. I believe it washes it right out for me, it always does, that's the one thing I believe was keeping me going in the early days 'cos I used to drink, drink everyday, it cleans you out. Yeah so now I take the tablets and just to make sure I take the layalaya too. (C: 1; 18)

*Table 39: Stage Three: Consequence Category: Balancing, Unbalancing, and Recovering Balance*

Paradigm component	Category	Sub-Categories
Outcomes	<b>Balancing, Unbalancing, And Recovering Balance</b>	<i>Experimenting with dietary control</i> <i>Experimenting with treatment options</i> <i>Experimenting with exercise</i>

### **Consequence Category: Balancing, Unbalancing, and Recovering Balance**

The consequence of this third stage of the managing process is that participants **Carry on with Life and Living** while **Balancing, Unbalancing and Recovering Balance**. The dimensions of **Balancing, Unbalancing and Recovering Balance** were different for each participant, but for all of them it involved the sub-category of *experimenting with options*. In order to achieve balance in glucose levels they had to experiment with food choices – balancing what they could afford with what was recommended. Sometimes in order to achieve glucose balance they had to balance their treatment options with traditional medicine and conventional treatment regimens. At other times they had to balance their lifestyle with work and recreation to achieve balance in their glucose levels. This meant that sometimes this experimenting with options would cause an unbalance in their blood glucose. Participants would then recover balance or sometimes overbalance in their choice of options, and then go on again in order to **Carry on with Life and Living**.



Throughout the whole process of managing, participants seek to carry on maintaining life and participating in all the dimensions of living this life as they know it. The following excerpt provides some clarification:

I said ‘heck don’t let me live like a dog’, no use if I can’t carry on, I don’t want to, and that will be it. I still want to chase girls, drink my grog, and sleep with my wife, otherwise what’s the use of it then. Yeah so I will only do so much cutting down on the eating and that good stuff, a man’s got to live otherwise I don’t want to. (F: 1; 16)

The following sub-categories provide this category with much more explanatory power to show how experimenting with dietary control, treatment, and exercise options for balance and control in their glucose levels led to participants **Balancing, Unbalancing, and Recovering Balance**.

*Table 40: Stage Three: Outcome sub-category: Experimenting with dietary control*

Paradigm component	Category	Sub-Categories
Outcomes	<b>Balancing, Unbalancing, and Recovering Balance</b>	<i>Experimenting with dietary control</i>

*Outcome sub-category: Experimenting with dietary control*

One of the sub-categories of **Balancing, Unbalancing, and Recovering Balance** is *experimenting with dietary control*.

Each of the participants has different ways of *experimenting with dietary control* but for all of them it came about by learning their limitations and then attaching the relevant changes to areas of their life that needed to be recovered. Those areas were not the same for all participants. Some participants were more likely than others to overbalance in food, and this would lead to recovering that area of dietary control and maintaining that balance until they overbalanced again. Recovering balance in the area of diet control would come about through experimenting with different foods and then taking their glucose levels. For all participants this involved monitoring the signs and symptoms that their sugar levels were getting too high and making some restrictions in

their diet to bring those levels down again. The following excerpt shows this **Balancing, Unbalancing, and Recovering Balance** in their dietary control:

Usually its too low and the Dr \* told me, he said 'you must have a snack'. The problem is I have a snack then the reading goes up. So first it's too low and what worries me is when I take the snack it jumps up too high. So I'm very careful and try to do without the snack because my sugar level goes up. I try all kind of foods to see what takes it up and then I cut it out next time but then sometimes at night \* will say 'get this down you, Dad, it's delicious'. It usually is. I can't resist, so then it's high again, that's the trouble I am having right now. (B: 1; 2)

Experimenting with different food to achieve balance for participants was mainly through finding out which of the traditional foods they couldn't eat, and then swapping these foods with others in the same food group. Participants were experimenting with these options in order to achieve a balance in their blood glucose levels:

Yeah more or less watching the diet and that, I made sure that I don't eat too much tapioca, so I swap that for breadfruit as I found out that breadfruit is very good you can eat breadfruit and never get high sugar, and I was trying to eat as much vegetables as I can, but sometimes I just say, heck with it, and eat what I want because over here (NZ) there's not much choice, only bread to eat and it's two slices, that's it, they say only have two slices in the morning but even when I have three I get out there in the morning and sweat it out in no time, my sugar level drops pretty quickly so yeah, it's really trying to get that balance and making the choice with what you can afford. (F: 1; 9)

The dimensions of **Balancing, Unbalancing, and Recovering Balance** in dietary control were different for each participant, but for all of them it meant making choices to achieve balance. For male participants this was not always a straight and consistent process. Participant F was 'more or less watching the diet'; other participants refer to 'cutting down just a little bit here and there', or 'just watching what I eat'.

These comments were made in reference to balancing their diet in order to achieve balance in their blood sugar levels that would enable them to **Carry on with Life and Living**. All participants attempted to make some restrictions in their diet but not all participants managed to maintain those restrictions. This was especially difficult for the

male participants. The following excerpt shows the **Balancing, Unbalancing, and Recovering Balance** in their dietary control:

You see most of the time when I am working I don't eat at the right time. I will just go into any restaurant and you know see the food and you just want to get into it, I never think about my diet again. This is my problem, my diet, I have been eating too much coconut cream and all this kind of thing, especially pork. I will drive miles to go to a butcher that sells the pork that I like, then at other times I will only just have dahl soup for days to get back on the right track again. (G: 1; 16)

Experimenting for dietary control for women participants involved experimenting with cooking methods and food choices and making concessions to keep their blood glucose at acceptable levels, as this excerpt shows:

I just love curry, could eat it every day, but you need to put lots of oil in it to taste good and that's what I go overboard on sometimes. Other times I will just eat dry ones, you know, but then I get sick of them and then I eat the stewy, soupy ones for a while, but I do cut out all the fat off the meat, like the corn beef, I put all the fat aside, I don't eat that. (H: 1; 24)

Whereas female participants tended to overbalance and then recover balance mostly in their dietary habits, overbalancing and recovering this balance for male participants involved not only food but also alcohol. The following excerpt portrays the relationship that male participants had with alcohol:

Drinking probably made it worse, well it's past, and it's gone. You cannot bring it back but I see the things that I could have done, you know. Drinking is part of my health and part of my life too. (G: 1; 41)

I have cut down on drinking a lot but after three weeks, four weeks you are back again to what you do you. (G: 1; 32)

I just carry on like before, only I just, more or less, try to watch what I eat and I don't drink more or any less of beer, I still drink the same amount, but I have made some changes to what I eat. (F: 1; 26)

The following excerpt from Participant C typifies how participants would give up alcohol completely. Once they were feeling good they would start going back to drinking 'just a little bit, then too much, then nothing at all' which typifies the **Balancing, Unbalancing, Overbalancing And Recovering Balance** with alcohol:

Gave up drinking, stayed away for 2 years completely, and I felt good, then I started going back to drinking beer and then start on, just a little bit of spirits, just a bit now and again, but then I go on it too much. You know it's like just a bit then too much, then nothing at all, but now I notice every time I take a little bit too much or get drunk on spirits, I feel my liver must be playing up. So now I hardly touch it at all. (C: 1; 10)

The drinking would continue until there was another **Bad Moon Rising** with more health troubles on the way. The **Balancing, Unbalancing, And Recovering Balance** was like a dance on a tight wire. Although the previous excerpt shows the **Balancing, Unbalancing, And Recovering Balance** with alcohol, all areas of their life were involved in this way and relate meaningfully to the core category and the BSPP of **WALKING THE LINE** which will be discussed more fully in Chapter Seven:

Yeah, I gave up the grog, but there's only so much a man can do. I could always split my throat in half, yeah I could do that. Yeah, but sometimes I really try with the grog, but then, you know, we have a big party, full swing and that's it, it's all over, then I go back to being a good again for a while anyway. As I said before, I work hard and a man's got to enjoy life otherwise I'll just give it away. (F: 1; 16)

*Table 41: Stage Three: sub-category: Experimenting with treatment options*

Paradigm component	Category	Sub-Categories
Outcomes	<b>Balancing, Unbalancing, and Recovering Balance</b>	<b><i>Experimenting with treatment options</i></b>

***Sub-category: Experimenting with treatment options***

Dimensions of balancing in treatment regimes were different for all participants, but for all of them it involved experimenting and making choices each day:

Before I have my meal it's between 6 and 10, then I take 10 units of Actrapid and it brings it right down to between 4 and 5 so I can have my meal. Last thing at night I take between 12 to 8 units of Protophane, but it depends on what I am eating, what I am doing and so I have to experiment and make choices, sometimes I take too much and other times not enough, it's all in trying to get the balance, for me that is. (E: 1; 26)

Other participants who were experiencing 'highs and lows' – which was, in effect, an unbalance of their glucose levels – began ***experimenting*** by playing around with

insulin dosages. These participants were trying to attempt some balance with glucose levels as the following excerpt illustrates:

First I started playing around by experimenting, like if I have to take it after meals then I shoot the dose down just to give myself some insulin, rather than taking the dose that I should take, it seems to help keep it level but it can throw me into a hypo. I got some highs and lows but then I managed to get it right and I felt OK, so most of the time I get it right. I would probably have a hypo about in a month, one, and at the most three. So when I told doc what I did he said that's what you should do. But nobody told me I'm allowed to experiment with it, which I didn't know I could, see for about 10 or 11 years. (A: 1; 23)

The dimensions of experimenting and making choices in treatment options were different for each participant but for all of them it meant experimenting and making choices to maintain balance in their blood glucose levels.

Some participants chose to combine Fijian medicine with oral hypoglycemic tablets to maintain their blood glucose at acceptable levels. Participants who chose to combine the conventional with the traditional on a daily basis did this by experimenting and making choices. While this experimenting was happening they would sometimes encounter problems and this is when the **Balancing, Unbalancing, And Recovering Balance** might occur. The following excerpt shows how the process of **Balancing, Unbalancing, And Recovering Balance** happens while *experimenting* with traditional medicine and an oral agent:

They tell me to come down, that I need to go on insulin but I don't think so, I am taking the tablets and the layalaya and a big glass of water, that's what brings my sugar down, unless I have big meal then it might stay up at 12 sometimes its on 16 but very rarely. Then I take more layalaya, it comes down but it goes high, goes low and everything but it's okay I don't mind that, I know what to do. (C: 1; 22)

Another dimension of balancing was choosing which aspect of treatment regimes needed to be undertaken by health professionals and which they could do themselves.

These choices involved taking the best of what conventional treatment had to offer, like keeping ophthalmology and dietician appointments, taking their advice on board,

and then adapting these changes based on what worked. Participants that were on insulin maintained their insulin regime and only used traditional Fijian medicine as remedies for treating ulcers and for eye remedies.

*Table 42: Stage Three: sub-category: Experimenting with exercise*

Paradigm component	Category	Sub-Categories
Outcomes	<b>Balancing, Unbalancing, and Recovering Balance</b>	<i>Experimenting with exercise</i>

***Sub-category: Experimenting with exercise***

Participants that related difficulties with exercising referred to problems with their feet due to toe amputations or the long-term complications of neuropathy that affected nerves and blood vessels causing poor circulation. The following excerpt from Participant G shows that getting enough exercise was a balancing act between going too far, and not getting enough. Participants didn't seem to be able to judge just how much they could do without incurring injury. Because they had diminished feeling in their feet they would often not know if their shoes were ill-fitting. Ill-fitting shoes would rub and cause blisters very quickly and these blisters would get infected, also very quickly, and infections could lead to amputations. So, for some participants, each day was a continuous experiment to see how far they could safely walk without getting blisters.

**Balancing, Unbalancing, And Recovering Balance** for Participant D was 'some days I feel good and can go far, other days no, it goes like that (hand gestures) ... up and down, up and down, some days good and some days bad':

With the exercise my problem now is poor circulation. I walk around the mall or go to the corner dairy but it's difficult, this boot rubs on my foot and then it blisters, around the Mall, that's good, stop have a rest outside, watch people go by. I get home check my feet, have to, feel that this shoe is not fitting right, its still rubbing on here, that's where they took off the toes, I don't want to lose my balance, fall over. She'll remind me if I forget anyway. I walk to the Indian man down on the corner, he sells tapioca and few things from home, we talk and I walk back up the hill, you see some days I can get all the way there and back, other days I don't feel it's going good and only get half way, come back

again and go again next day, keeps my blood sugar down, yeah, but the blisters, see I got nothing, no feeling now in there so I don't know when its rubbing and I don't think, so I will get my balance again so some days I feel good and can go far, other days no, it goes like that ... up and down, up and down, some days good and some days bad. (D; 1; 4)

Other participants, like D, feared losing their balance when out walking, and related times when they felt despondent about ever being able to recover a sense of balance and the freedom that they used to enjoy. Participant H felt tired all the time and during those really tired days feels that her balance is unsafe. On good days, when her energy levels are high and she feels good, she recovers her sense of confidence but then overdoes the housework. This keeps her on a roundabout of **Balancing, Unbalancing, And Recovering Balance** in her activities:

I remember one time I felt good and \* was coming over so I thought I would spring clean, take the curtains down, and prepare the room for her. I felt good and just carried on with it, I knew I should eat first but I kept thinking after this, I will just do this, and then it was something else I wanted to do, and before I knew it I was losing my balance on the step-stool and funny lights kept coming and going. It was lucky for me that I got very quickly to the sink and just ripped into the sugar bowl. So now I tend to overdo on the food before I do anything like that again. I rather keep my sugar level high then get too low, yep that's the thing now, I tend to stay high 'cos I'm scared of getting too low. (H: 1; 42)

Participants were also scared of getting too low when socialising, preferring to keep their blood sugars at a high level to avoid the risk of having an insulin reaction. This would keep their blood sugars in a constant state of flux and is the **Balancing, Unbalancing, And Recovering Balance** in blood sugars:

I don't like to go out and have to worry about being too low, especially at night when I have to drive, so what I do is eat a lot beforehand but when I eat I don't feel like drinking so if I know that I will be drinking I just weigh up the balance of it before I go out and either eat a lot beforehand to make sure or I just don't take as many units as I would normally, but that has its problems because I have to eat before I go to bed, even if I'm not hungry or I will have trouble and I may not wake up at all. So maybe I'm not always in control but I prefer to do it my way or I will be just stuck in the house and never go out to any do's. (I; 1; 43)

### Summary of Stage Three

As time passed and circumstances changed, a **Bad Moon Rising** loomed in the lives of some of the participants and they began *seeing trouble on the way* in the form of going to hospital again, going on dialysis, losing limbs, and losing eyesight. In this third stage the participants' main concern still revolves around how to **Carry on with Life and Living**, which they attempt to resolve by **Seeing Through the Looking Glass Widely**, whereby they begin *uncovering structural conditions* and *identifying the Pacific way*, and **Attaching Face and Form** to an enemy that was previously invisible.

**Attaching Face and Form** enables participants to begin *engaging with the enemy* and put strategies into place to enable them to resolve their main concern of **Carry on with Life and Living**. They do this by **Straddling the Line** with the outcome of experimenting with their diet, their treatment options, and their exercise – in fact with all of the long-term, recommended lifestyle interventions – to enable them to maintain their blood glucose close to normal, and to prevent wide fluctuations and hypoglycemia. The actions, interactions, and strategies of the participants have the outcome of **Balancing, Unbalancing, and Recovering Balance** with their blood sugar levels in order to resolve their main concern of **Carry on with Life and Living**.



## CHAPTER SEVEN: DISCUSSION AND CONCLUSION

---

### Introduction

The previous chapters reported the three stages of the managing process for Part-Europeans with Type 2 diabetes and identified the participants' main concern. This chapter will first focus on how **WALKING THE LINE** was discovered in the data through a three-stage progression of the managing process and subsequently emerged as the BSPP of how Part-Europeans resolve their main concern and manage Type 2 diabetes. I will first begin by bringing together the diagrams as a representation of analysis and explain the conceptualisation of the overall model of **WALKING THE LINE**. Secondly, the three stages of **Carrying on Regardless, Attempting Balance in Time and Motion and Control** and **Balancing, Unbalancing, And Recovering Balance** will be discussed in relation to the substantive theory and the BSPP of **WALKING THE LINE**. Key categories of each stage of **WALKING THE LINE** will then be discussed in the context of existing literature. Fourthly, implications for nursing practice and recommendations for further research are discussed. This chapter concludes by outlining the limitations and strengths of this study.

### The Basic Social Psychological Process of 'WALKING THE LINE'

The aim of this research is to use the grounded theory method to generate a theory of managing that could identify and explain the process of managing Type 2 diabetes for Part-Europeans. Early in the analysis it became apparent that the participants' actions, interactions, and strategies were geared toward **Carrying on with Life and Living**. Further analysis led to the discovery of **WALKING THE LINE** as the BSPP involved in the way that participants **Carry on with Life and Living**. **WALKING THE LINE** is the substantive theory of managing for Part-Europeans with Type 2

diabetes. The BSPP is similar to a core category, except it must have at least two distinct stages or phases to account for process, change, and movement over time (Glaser, 1978). **WALKING THE LINE** accounts for the actions that participants engage in most of the time, is seen in their interactions and strategies, and addresses their main concern of carrying on with life and living.

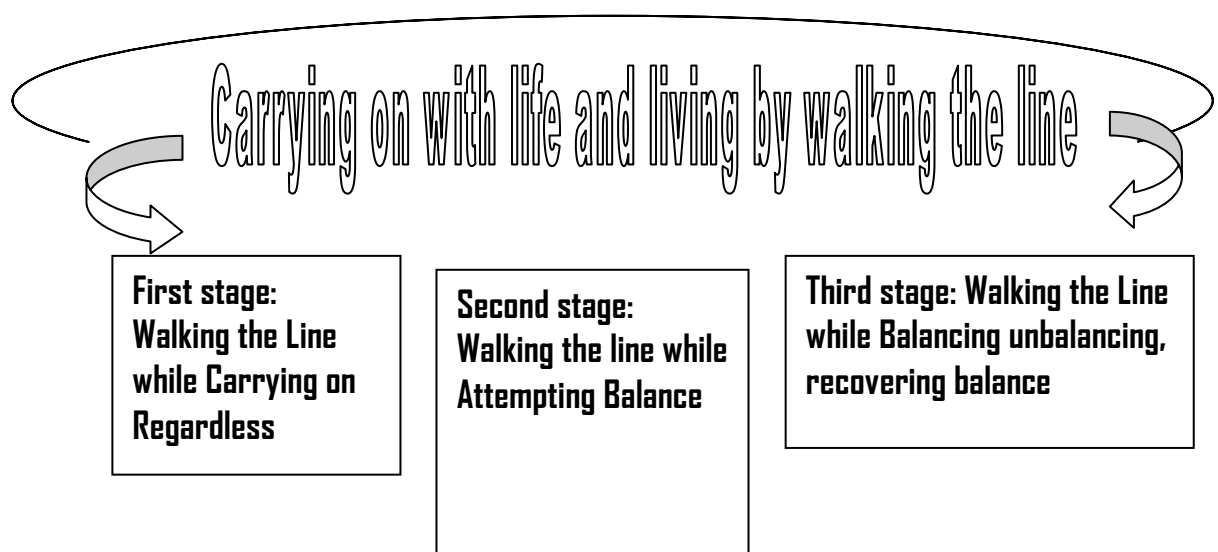
Figure 7 (see next page) merges the three processes of **Carrying on Regardless, Attempting Balance in Time and Motion and Control**, and **Balancing, Unbalancing, And Recovering Balance** to represent the process of managing over time and in changing circumstances and identifies the BSPP of **WALKING THE LINE**.

**Part-Europeans Managing Diabetes Type 2: The basic social and psychological Process of **Walking the Line****

Carrying on Regardless

**carrying on while attempting balance**

Carrying on while balancing, unbalancing, recovering balance



*Figure 7: The Three-Stage Managing Progression of WALKING THE LINE*

## The conceptual model of WALKING THE LINE

The diagrams throughout this thesis are visual representations of the categories and sub-categories that comprise the three stages of **WALKING THE LINE**. The Diagram, (Figure 8) brings these images together and I now discuss **WALKING THE LINE** in relation to these visual models.



*Figure 8: WALKING THE LINE*

Throughout the three stages, all the diagrams have a road and this road represents the road of life on which the participants are travelling. When travelling a road, we usually follow one side or the other of the central white line. The line does not indicate the dimensions of the road; it merely follows the road and stays in the centre to allow us to travel either side and to keep going. The white line acts as a guide to keep us on the road and as a guiding point of reference to our destination. If the road becomes dim or narrows to the extent that we fear falling off and losing our way, or we are unable to physically navigate the road, then we may need to walk closer to the white line. Walking closer to the line helps us to regain a sense of our journey and find our balance as we continue on the road of life.

The BSPP of **WALKING THE LINE** is a conceptualisation of the managing process for participants as they travel through the journey of life while managing Type 2 diabetes. **WALKING THE LINE** is identified as the central category integrating the data that encompasses the three related stages that participants experienced over time and in changing circumstances. The identified main problem of carrying on with life

and living was resolved through the basic social and psychological process of **WALKING THE LINE**. I will now discuss each stage of the overall process in relation to **WALKING THE LINE**.

### *Stage One and WALKING THE LINE*

In all three stages the participants are **WALKING THE LINE**, travelling the road of life as they discover different processes for managing their diabetes. In the first stage, because the participants felt and saw nothing, knew nothing, or didn't want to know anything, and had no tangible evidence of the disease process, the road was wide. The road was wide enough to accommodate their main concern of carrying on with life and living without their having to make any adjustments to their lifestyle, except to take traditional medicine. **Carrying on with life and living** in this stage meant continuing with all the good things that they enjoyed and the most extreme good thing that most of them enjoyed was drinking alcohol to excess, depicted by *hitting it*. They had not fully engaged with, or come to terms with, their diagnosis and felt that doctors were also detached and lacked any personal engagement with them. In response they also disengaged and detached themselves from any further conventional medical care. This road had ample room on either side to **Carry on with Life and Living** and participants were **WALKING THE LINE** and **Carrying on Regardless**.

While in the first stage the participants were initially **Carrying on Regardless** and appeared, by conventional medical standards, to be passively managing, they were actively **WALKING THE LINE** between their psychological wellbeing and maintaining their physical health by **Sticking with the Tried and True**. Participants were **WALKING THE LINE** to keep going about their daily affairs and striving to normalise life, in all its dimensions. To do this they used traditional medicine to

minimise harm and to enable **WALKING THE LINE** regardless of **Receiving Bad News** of their diagnosis.

### ***Stage Two and WALKING THE LINE***

The BSPP OF **WALKING THE LINE** in this second stage involves the road beginning to narrow. The days of **Carrying on Regardless** came to an end when bad things started happening, things like going to hospital, going on insulin, losing friends, and losing means of employment and enjoyment. **Experiencing Bad Things** has taken away many of the dimensions of life and living that they previously enjoyed, and Figure 8 shows how **Experiencing Bad Things** has eroded the sides of the road, made the landscape bleaker and left a road that is narrowing in on them.

**WALKING THE LINE** in this stage is **Finding the Fault Line** with healthcare providers and with themselves for **Disengaging** from conventional treatment. **WALKING THE LINE** and **Finding the Fault Line** involves apportioning self-blame and blaming genetics and/or the medical profession and looking at dimensions of their lifestyle by *looking at the man in the mirror*. *Looking at the man in the mirror* is self-revelation in the reflective gaze of a mirror in the light of **Experiencing Bad Things**. Dimensions of their lifestyle that they had previously disregarded, or been careless about, were scrutinised. Because the mirror is a reflection of the past they realised that they had never fully come to terms with their diagnosis.

Their actions and interactions within the context of *looking at the man in the mirror* and **Finding the Fault Line** are to travel a little closer to the white line by **Engaging with Self and Others**, and *engaging with the man in the mirror*. They do this by overcoming, gaining knowledge and coming to terms with their diagnosis in order to continue **WALKING THE LINE**. The strategy they employ while *engaging with the man in the mirror* is **Making Some Changes** by finding out what works and

attempting a balance between actively coping and passively coping. The diagram (Figure 8) shows the participants travelling on while **WALKING THE LINE** in this second stage of the process of managing diabetes with less room on either side of the road to **Carry on with Life and Living** as they knew it. *Looking at the man in the mirror* while **WALKING THE LINE** keeps them *engaging with the man in the mirror* while **Making Some Changes** by leaving some things behind and leaving other things out that were parts of **Carrying on Regardless**.

These changes have the outcome of **Attempting Balance in Time and Motion and Control** not only of their blood sugar levels but also in all the dimensions of their life while **WALKING THE LINE** on the road of managing with Type 2 diabetes.

### ***Stage Three and WALKING THE LINE***

The condition that moves participants along into the third stage of **WALKING THE LINE** is a **Bad Moon Rising** with trouble on the way. Some participants lose their eyesight while others have to have amputations and so the road becomes narrower. The way becomes dim with failing eyesight and the loss of limbs and there is a lot less room on the road. They are still determined to **Carry on with Life and Living** but now they need to stay a lot closer to the centre line to navigate the journey of carrying on with life and living. The mirror in which they previously saw their own reflection has never left and they begin **Seeing Through the Looking Glass Widely**. **Seeing Through the Looking Glass Widely** is more than a reflective image of their face that they encountered in *looking at the man in the mirror*, for in this stage the mirror takes in the wider surroundings of the landscape and the background from whence they have come. The mirror gathers in and begins *uncovering structural conditions* that enable or impede **WALKING THE LINE**.

**Seeing Through the Looking Glass Widely**, they also begin *identifying the Pacific way* and see that their perceptions of diabetes arise from their previous healthcare experiences of ‘chop chop’ doctoring in Fiji. **Seeing Through the Looking Glass Widely** they also see how sociocultural behaviour norms like *hitting it* and not taking anything seriously until something really bad happens are part of the Pacific way.

**Seeing Through the Looking Glass Widely** enabled actions and interactions of **Attaching Face and Form** to an enemy that was previously invisible. Once they could attach face and form they could engage with the enemy of diabetes and make *self-determining* choices for managing. Some participants choose to straddle the line between Western and conventional medicine, taking what they wanted from both. Other participants choose to walk the thin line of sticking with conventional medicine. The line in the road stayed the same but the participants’ choices became narrowed with each stage of the process until by this third stage, they were walking a thin line in an attempt to carrying on with life and living.

In the third stage some participants are **WALKING THE LINE** while **Straddling the Line** with doctors regarding insulin versus stronger tablets. Some participants are **Straddling the Line** while **WALKING THE LINE** between conventional medicine and traditional medicine. While **WALKING THE LINE** participants are experimenting with insulin dosages and adjusting insulin levels with food intake and **Straddling the Line** of hypoglycemia and hyperglycemia while experimenting with traditional and pharmacological medicine. The consequence is that fluctuating sugar levels cause **Balancing, Unbalancing And Recovering Balance** while **WALKING THE LINE**. Participants are also **WALKING THE LINE** between their traditional world and the Western scientific world while **Balancing, Unbalancing And Recovering Balance**.



Participants are balancing activities like eating, drinking, working, playing, partying, and chasing girls as well as exercising with resting and finding a balance between all of this finds them **Balancing, Unbalancing And Recovering Balance** while **WALKING THE LINE**. Balancing dietary needs with budget constraints finds them **Balancing** food portions and then overbalancing when they overindulge in food and alcohol, then recovering balance after **Unbalancing** while **WALKING THE LINE**. These categories can all be subsumed into **Balancing** while walking a tight rope between one extreme and another, between living to excess and living to death, which is **Carrying on Regardless. WALKING THE LINE** is also **Straddling the Line** and walking between one world and another along the road of life. **WALKING THE LINE** is **Balancing** the **Fault Line** while maintaining the lifeline. What does ‘I just carried on’, or ‘carrying on’ mean? It means ‘keeping on’, going along the journey of life and **Carrying On With Life and Living**, and managing diabetes through **WALKING THE LINE**.

### **Comparisons with Relevant Literature**

In this section I will discuss the key categories and sub-categories of **WALKING THE LINE** in relation to relevant literature. Areas of divergence that are unique to this study will be identified and explored to arrive at implications for nursing and for further research.

A review of health research literature revealed a number of studies in which the core categories of **WALKING THE LINE**, or balancing, explained the participants’ main concern. ‘Walking a fine line’ was found to be the core category and the basic social process that explained the management and meaning of diabetes in Nyhlin’s (1991) grounded theory study. Nyhlin’s (1991) study was conducted in Sweden with 19 Swedish men and 29 Swedish women who were all insulin dependant. Balancing while

‘walking a fine line’ in Nyhlin’s (1991) study was compatible with many of the categories found in **WALKING THE LINE**. Within the context of personal meaning ‘walking a fine line’ was explained as a balancing act that captured the need to balance physiological aspects, such as the type and amount of food, insulin, and exercise for metabolic control as well as interactions with health providers (Nyhlin, 1991).

Similarities between my findings and those of Nyhlin’s (1991) study are that participants are also **WALKING THE LINE** in the second stage of this study in **Attempting Balance in Time and Motion and Control** by finding how much exercise or manual work was needed to keep blood sugars down, and seeking some control over dietary habits in an attempt to balance blood sugar levels. Nyhlin’s (1991) balancing by ‘walking a fine line’ between reasonable health and complications is also found in the third stage of **Balancing, Unbalancing, and Recovering Balance** and experimenting with dietary control, exercise, and then **Balancing, Unbalancing, and Recovering Balance** with their blood sugar levels. Nyhlin’s (1991) balance was ‘walking a fine line’ between the demands of diabetes management and the need to lead a normal life and it has a good fit with **WALKING THE LINE** for this study and the participants’ concerns of **Carrying on with Life and Living**.

A meta-analysis using the method of meta-ethnography to conceptualise the lived experience of diabetes in 43 qualitative interpretive research studies from 1980-1996 found balancing as the predominant metaphor (Paterson, Thorne, & Dewis, 1998). Balancing (Paterson et al., 1998), by knowing the body’s responses and learning how to manage in daily life, shared similar conceptual properties to **Engaging with Self and Others** by overcoming, connecting, and gaining knowledge in the second stage of **WALKING THE LINE**. There are similar properties found in the third stage when

participants begin to take some affirmative action as they begin **Attaching Face and Form**.

A review of seven qualitative studies that were not included in Paterson, Thorne & Dewis's (1998) meta-analysis also used a meta-ethnographic approach to evaluate responses to diabetes, and included studies undertaken over a 20-year period (Campbell et al., 2003). The authors found that balance was an important factor in living with diabetes. The process involved in balance (Campbell et al., 2003) that converged with the process of **WALKING THE LINE** was found in **Seeing Through the Looking Glass Widely** when the authors link balancing to time, experience, gaining knowledge, and recognising the seriousness as some of the critical stages that people go through in attaining a balance and managing diabetes (Campbell et al., 2003).

The substantive theory **WALKING THE LINE** for this study shares many of the same conceptual properties found in chronic illness studies that used a grounded theory approach. For example, one grounded theory study of 'end of life cancer care' found 'balancing' as a basic process. The metaphors of 'balancing on a thin rope' or 'walking a fine line as a basic process accounted for variation in change over time, context, and behaviour' (Thulesius, Hakansson, & Petersson, 2003).

A grounded theory study exploring the needs of family caregivers taking care of terminally ill persons at home identified vulnerability as the core variable and found balancing between burden and capacity to cope as factors impinging on their vulnerability (Proot et al., 2003). A study of women living with fibromyalgia (Schaefer, 1995) found a basic social process of struggling to maintain balance with finding out and denying the symptoms and moving on by learning to adapt had similar properties to this study of **WALKING THE LINE**. Other similar conceptual properties were found to this study's **Straddling the Line** between Western and traditional medicine in

experimenting and seeking a balance with home remedies and medical therapy and some participants deciding to only take a non-traditional approach (Schaefer, 1995).

These studies confirm my findings that people in stress, dealing with chronic illness, often manage by 'balancing' or 'walking a fine line'.

### ***Receiving Bad News***

In my study, the meanings and perceptions that were attached to diabetes and participants' initial reactions in the early days of their diagnosis were found to be important as the initial reactions set the scene for participants **Carrying on Regardless** in the first stage of **Receiving Bad News** of their diagnosis. The reactive emotions of the participants in this study to **Receiving Bad News**, like feeling shocked, fearful, stunned, devastated, disbelieving, disappointed, worried, and *fearing loss and change* are known reactions to a crisis. These are human responses to shock and have the ability to suspend time and motion as protecting mechanisms (Hoover, 1997; Rhiley, 1997).

In the sub-category of *what a difference a day makes* participants reported a turning point between one day when they were normal and then the next day when they were diabetic. The sub-category of *what a difference a day makes* has already been explored with relevant excerpts in stage one showing that it felt like a mini-death for the participants. It is not improbable that this may have brought the inevitability of death in the distant future a lot closer to the present and set into motion the process of denial.

Weisman (1972) examined denial reactions to death and categorised them into first, second, and third degree reactions. The first reaction is that the patient denies the clinical facts, then the implications of the clinical facts, and then denies extinction or non-existence (Weisman, 1972). The similarities to Weisman's (1972) categories are found in this first stage, for despite the clinical implications of threat to their physical and psychological stability, the participants strive to **Carry on with Life and Living**.

That they do this regardless may well be the coping behaviours called on in the face of threat to regain control of, and gain mastery over, **Receiving Bad News**.

Another perspective on **Carrying on Regardless** may be found in crisis theory which developed from the classic studies of psychoanalytical theory and the work of ego psychologists. Caplan (cited in Townsend, 1999) built on these classic studies and defined the term crisis as:

psychological disequilibrium in a person who confronts a hazardous circumstance that for him constitutes an important problem which he can for the time being neither escape nor solve with his customary problem-solving resources. (p. 186)

The phases of a crisis are firstly the person's anxiety response to a traumatic event and then the familiar coping mechanisms that a person uses in response to this anxiety. If those coping mechanisms are effective then anxiety is abated and the person will no longer be in crisis. During a crisis the person will find familiar ways of coping by adapting and developing more constructive coping skills or may decompensate to a lower level of functioning (Townsend, 1999). The coping mechanisms that participants used were familiar ones, like **Sticking with the Tried and True** and *hitting it*. These coping mechanisms were effective in decreasing their anxiety at **Receiving Bad News** thus resolving the crisis and enabling **Carrying on Regardless** in the first stage.

### ***Experiencing Bad Things***

I believe that these coping mechanisms failed when participants began **Experiencing Bad Things** in the second stage of **WALKING THE LINE**. The previous invisibility of the disease could not be ignored and the participants may have then been thrown into a new level of crisis. When the person's inner resources and support systems have failed and the event that causes the crisis is still not resolved, stress and anxiety mount in what is called an 'active state of crisis'. This is referred to

as the fourth phase and characterised by looking inward for possible reasons for the trauma and how it might have been changed or avoided (Chandler, 1993).

I believe there are many similarities and relevant links to this fourth phase in the category of **Finding the Fault Line** when participants began to search for reasons and attach blame to themselves and others for **Experiencing Bad Things**. The turning point that initiated behaviour change was when participants began facing the reality of their drinking habits, this is categorised as *looking at the man in the mirror*. This involved a critical self-appraisal and they then began to take action by *finding what works* in **Attempting Balance in Time and Motion and Control** as an attempt to resolve this crisis and decrease their anxiety.

### ***Bad Moon Rising***

The problems associated with one phase of crisis are not necessarily resolved, especially when one is faced with the progression of a disorder like diabetes. I believe that a new level of crisis was precipitated by **Bad Moon Rising** in the third stage, as the participants encounter ongoing, accumulating problems and also new problems with *seeing trouble on the way*. Managing this new crisis required an actual change in perception and this occurred when they began **Seeing Through the Looking Glass Widely**. While **Seeing Through the Looking Glass Widely** participants began to recognise origins of behaviour.

Rhiley (1997) believes that people must first understand the relationship between their attitudes and behaviours before they are able to make informed decisions and take charge of their own diabetes care. In the third stage of **WALKING THE LINE** participants are reconciled to taking charge and this is seen in **Balancing, Unbalancing And Recovering Balance** by exercising and changing dietary habits to normalise blood sugar levels and to avoid the fluctuating wild swings between hyperglycemia and

hypoglycemia. They now feel more empowered to be the primary decision maker in their own diabetes care and some choose to take only traditional medicine while others straddle the line and take both traditional and Western medicine.

This self-caring strategy would not have occurred if they had not made self-determining decisions like changing doctors. The key factor in a person's commitment to self-care is the relationship with the healthcare system and establishing trust is the key factor in fostering this relationship (Bolanos & Sarria-Santamera, 2003). In New Zealand Type 2 diabetes is a major public health concern for Maori and Pacific Island people and the nature of the care provider-patient relationship should be the core element in efforts to improve glycemic control (Simmons, 1996). Therefore implementation of any effective nursing management and treatment plan should involve communication that takes account of the patients' cultural preferences and psychosocial perspective (Simmons, 1996).

Given that Type 2 diabetes is now reaching worldwide epidemic proportions and is posing significant challenges for health systems across the world, there is a surprising lack of studies identifying patients' perspectives of their relationship with diabetes services. Participants in this study reported a lack of engagement from healthcare providers which, in turn, led them to disengage from treatment. A relationship compromised by the lack of communication around alternative forms of therapy, like traditional medicine, may alienate people who use such therapies. Yet only a minority of patients are able to communicate openly about this practice to their doctors (Eisenberg, 1997).

### ***Sticking with the Tried and True***

Simpson's (1974) study identified that Part-Europeans' beliefs of health and illness were based in the supernatural's ability to do harm and that they were just as likely to access traditional healers as Western doctors and to use traditional remedies along with Western medicine. This is congruent with the participants' strategies of **Sticking with the Tried and True** by using traditional medicine in the first stage and **Straddling the Line** between Western and traditional medicine in the third stage. This study adds to research indicating the growing use of complementary and alternative medicine for chronic ailments (Dey, Attele, & Yuan, 2002; Eisenberg, 1997; Sharma, 1992; Yeh et al., 2002) and in particular the use of herbal remedies for diabetes (Dey et al., 2002). In the first stage of their managing process, participants relied solely on traditional medicine to 'keep them going'. The use of traditional medicine was, in effect, an act of self-caring, unconventional by Western standards but not so within the participants' own cultural context.

The commissioned study by Diabetes New Zealand (2001) identified that Pacific Islanders use alternative health providers as their first choice (Diabetes New Zealand & PricewaterhouseCoopers, 2001). They have not however identified the nature of Pacific Islanders' alternative healthcare providers. One of the challenges of conducting research with, and providing care for, people known as Pacific Islanders in New Zealand is to acknowledge and account for the diversity that exists between and among Pacific Islanders. The researcher and participants in this study were of Fijian heritage, other Pacific Islanders have different cultural and regional heritages that would influence their healthcare practices. Rather than referring to Pacific Islanders as one group, it would be helpful for Island researchers to acknowledge this diversity and conduct research among their own particular ethnic groups.



Such research could ask about specific beliefs about health and illness, the role of traditional medicine, and the nature of their alternative healing practices. Further research may find more commonalities than differences but would avoid stereotyping culture-specific beliefs, treatment, utilisation, and prevalence of such healers by Pacific peoples. This study found that Part-Europeans use a variety of botanical remedies for diabetes, and there are similarities in attitudes towards traditional remedies in Fiji and Tonga (Weiner, 1989). It would be helpful to know whether other Pacific Islanders use these same remedies.

Research that could identify similarities as well as differences in other Pacific Islanders' botanical beliefs and use of such remedies could provide directions for future research into their properties. Understanding the use of traditional medicine would inform nursing practice and provide guidelines for care based on the use of such practices by structuring a model that could take into account common botanical treatments among Island groups and provide delivery of care that is sensitive to the values, beliefs, and needs of all Pacific Islanders.

### ***Hitting It***

The phenomenon of illness is seen in its disruption of personal values and expectations and these values and expectations are largely culturally derived (Trotter, 2000). Not wanting to think about it and not wanting to know were understandable protecting and defending mechanisms for the participants in this study. Emotions of disbelief and the behaviours of invincibility 'it couldn't possibly be happening to me' are common protective coping strategies (Jerreat, 1999) that, in this case, allowed the participants to carry on with cultural values and expectations.

The women participants carried on with cultural behaviour patterns and expectations of putting their family's needs first, which made dietary adjustments

difficult. This finding concurs with other studies that found similar patterns of women putting their own dietary needs last when they conflicted with the dietary needs and desires of the family (Anderson et al., 1998). The men also carried on with cultural behaviours; although these cultural behaviours were different from the women's behaviours, they were nonetheless cultural behaviour norms and expectations of men in their culture. While female participants carried on as usual putting the family first, male participants carried on as usual *hitting it*, which means that they carried on as usual with their drinking of alcohol to excess.

The findings of this study found a drinking pattern among Part-European men that is also found in Black and Hispanic men, and American Indian reservation dwellers in the United States (Galvan & Caetano, 2003). Alcohol use is influenced by social and cultural factors, norms, and attitudes within one's own referent group toward alcohol as well as the extent that a person is acculturated to larger society (Galvan & Caetano, 2003).

Previous studies by Kelly (1966) and Simpson (1974) inform us that many Part-Europeans are able to trace back generational drinking patterns to their paternal ancestors who prided themselves in hard drinking and never giving in to external adverse circumstances (Kelly, 1966; Simpson, 1974). The participants in this study reported heavy drinking behaviours and a partiality to spirits, and they are of a generation traceable to early European influence. It is possible that cultural behaviour norms of heavy drinking are the acting out of socially prescribed scripts of masculinity from their white forefathers, or the behaviours that they may have been exposed to in the Colonial era and socialised into as boys.

The inference that their norms and attitudes toward alcohol use were influenced by the nature of colonial society is too simple an explanation and one that does not take

into account other influencing factors. There may be other reasons for the heavy consumption of alcohol, Kelly (1966) writes that Part-Europeans were psychologically unsure of themselves and the older generation had a timidity and feeling of inferiority. According to Simpson (1974), Part-Europeans' position as a minority group and of marginality in Fiji's society caused psychological stress. Neither of these authors addresses the role of alcohol. However, both Kelly's (1966) and Simpson's (1974) studies infer that unless Part-Europeans were well integrated within both cultures they were psychologically, psychically, and societally fragmented.

In the following paragraphs I explore Kelly's (1966) and Simpson's (1974) findings in relation to the sub-categories of *hitting it, looking at the man in the mirror* and the category of **Seeing Through the Looking Glass Widely**. I do this by first outlining the concept of Vakaturaga. I then use this concept to show how a sense of ambivalence and conflict regarding identity and marginalisation may have lead to the behaviours of **Carrying on Regardless** and *hitting it*.

Indigenous Fijians had their own socially prescribed behaviour norms that embodied qualities of respect, deference, compliance, humility, loyalty, and honesty. These values were referred to as *Vakaturaga* and were espoused as 'chiefly' behaviour toward people of authority and importance. All indigenous Fijians were socialised to act this way to each other in all their interpersonal relations, regardless of rank or status (Ravuvu, 1987).

Part-Europeans were socialised into the Fijian and European culture and adopted heavy drinking from their white forefathers but were also socialised into the values of Vakaturaga from mothers or grandmothers who were Fijian (Simpson, 1974). Heavy drinking, especially of whiskey, became a symbol of status, privilege, and respectability (Kelly, 1966; Simpson, 1974). Yet Part-Europeans were considered socially inferior and

British colonial personnel had strict orders with enforced penalties to ensure there was no intermarriage or cohabitation with the indigenous community (Kelly, 1966; Simpson, 1974).

The Fijian qualities of Vakaturaga ensured loyalty and deference to Fijian chiefly authority as well as to the authority of Colonial rule (Ravuvu, 1987). However Part-Europeans needed to align themselves with the dominant European race and culture of the Colonial era. That this alignment was a prerequisite for survival may have only compounded the ongoing conflict of interest that Part-Europeans felt between paternal European values and their maternal and emotional ties of Vakaturaga.

The term *Kai Loma* comes from the Fijian, meaning those ‘in between’ and is reflective of their mixed descent. The term *Kai Loma* may also hold for some Part-Europeans the sense of a people ‘in between’ the Fijian world of Vakaturaga and the Western world of their forefathers. My study shows similar relevant links to the historic evidence of alcohol abuse and dependency within the Native American culture that is associated with personal conflict of identity and the cognitive dissonance of retaining their own culture while attempting to conform to dominant white society (Baker, 1982). Kirmayer, Brass, and Tait (2000) link the high rates of alcoholism in First Nations, Inuit, and Metis of Canada to the legacy of colonialism. These authors concluded that the colonisation of indigenous peoples around the world created mental health problems like alcoholism as a result of subtle racism, cultural discontinuity, displacement, and oppression (Kirmayer, Brass, & Tait, 2000).

The marginality of Part-Europeans was due to their mixed ancestry and social position in a society that was class- and caste-conscious and racially compartmentalised (Kelly, 1966; Lal, 1992; Simpson, 1974). Marginality causes shame that is related to social judgements of low hierarchical rank and status in society and a sense of

inferiority (Gilbert, 2000; Gilbert & Andrews, 1998). The self-denigration of defective, unworthy, incompetent, or bad arises from a person's core self-concept with accompanying feelings of worthlessness and powerlessness, and a sense of shrinking or of being small (Lewis, 1971).

There is no doubt that shame related to marginalisation and inferiority were early formative influences of Part-European childhood socialisation that may have contributed to their heavy drinking. Other factors contributing to their heavy drinking may have been the very different role models for social behaviour, a sense of ambivalence, conflict, and dissonance of identity with traditional values of Vakaturaga that bind indigenous Fijians together as a community and the opposing pull of economic privilege of their white forefathers.

The excessive drinking and the behaviours of **Carrying on Regardless** may have served as a functionally supportive role integral to a life constantly exposed to and 'in between' conflicting dominant cultures. Finding resolution through confrontation would disadvantage economic security, and was not the way of Vakaturaga. The concept of 'in between' the Fijian world of Vakaturaga and the Western world of their forefathers lends credence to Kelly's (1966) findings of a generation that were psychologically unsure of themselves.

Participants in this study begin to recognise these behaviours and this is borne out in the data and conceptualised as the sub-category of *looking at the man in the mirror* in the second stage. The category of **Seeing Through the Looking Glass Widely** in the third stage shows that participants begin to identify the wider impacting social and cultural norms within their society that have a bearing on their cultural practices of *hitting it*.

The results of this study show that socialisation of Colonial influences, the Fijian ethos of Vakaturaga, marginality, and shame in identity formation of Part-Europeans may have had an influence on the pervasiveness of alcohol in their managing process. To investigate whether the predilection for heavy alcohol consumption remains the norm in a much younger generation influenced by post-colonialism would be an interesting research study. Differences in cultural values and histories would affect any direct comparisons between this study and any research with other Pacific Islanders that have not been colonised, but would make an interesting comparison.

### **Implications of This Study for Nursing and Further Research**

The results of this study reveal that the social and historical contexts of Part-European culture, such as heavy drinking, carrying on with life and living in the face of adversity, and taking traditional medicine impacts significantly throughout their managing process. To label a health practice as complementary and alternative medicine for Part-Europeans may be misleading if it is part of one's traditional practice and beliefs and as such is integrated within life as normal. If we use only the Western management and treatment plan as the standard for managing diabetes then participants who have traditional ways of approaching health and illness may be discounted as non-compliant.

This study demonstrates that it is crucial for diabetes healthcare providers to understand a client's cultural context of what counts as an illness. It is also crucial to ask clients about traditional healing practices and traditional medicine openly without negative commentaries on the use of these practices. To discount these traditional healing practices is to discount the cultural context of what counts as an illness and clients may be reluctant to seek care with a provider who disparages traditional or culturally-based approaches to blood sugar control.

To make diabetes education programs more effective for Part-Europeans it may be pertinent to address the role that alcohol plays in their life. Research into patterns of alcohol consumption and alcohol-related problems among people with diabetes could parallel the development of appropriate treatment programs alongside diabetes management education.

The different reactions that people have in response to conditions that require change, like receiving the diagnosis of diabetes, are as complex and diverse as the composite physical characteristics of racial and ethnic diversities that make us human. Although there may be universal commonalities in the experience of crisis, the events may be differently appraised and the resolution may not always follow a linear or stage and time bound process.

The implications for nursing involve the way that we understand and respond to clients when they are diagnosed with diabetes, both in the short and longer term. Further research is needed to investigate how emotional responses are shaped by cultural practices in the newly diagnosed and to develop supportive strategies. Education should always involve family to encourage the integration of diabetes into a lifestyle and to accommodate cultural practices and beliefs around illness and traditional healing practices.

Several key points arose from this study that may be pertinent for diabetes services in New Zealand. The first one is that the participants identified a need for improved communication and engagement from their GPs. The second point that participants make is the need for referral on to specialists. The third point is that participants prefer a level of engagement in their communication with diabetes care providers that takes a partnership approach to care.

### **Limitations of This Study**

Keeping participants' anonymity meant trimming a lot of excerpts and losing the flow of language and recall of events as they mentioned revealing episodes about family members and places that would connect them to others within the sample group. Snowballing was difficult for theoretical sampling and I would have liked to have had more female participants. The female participants shared most of their experiences via the telephone and could not be audio-taped and therefore could not be cited verbatim in the thesis. A disproportionate amount of the cited data came from the male participants, and this may have suggested that it was only the men who drank heavily. In fact a number of the women talked about issues with alcohol but it was the men's experiences that I focused on in the analysis.

As in many interpretive research studies, there is a purposive sample and it is small. Readers of the research will need to decide how appropriate the findings are to their group of interest. Time constraints have not allowed the findings to be taken to different ethnic groups or to Part-Europeans from Fiji living in other regions.

### **Strengths of This Study**

The obvious contribution of this study is in the generation of the basic social and psychological process of **WALKING THE LINE** that accounted for variation in change over time, context, and behaviour in managing Type 2 diabetes for Part-Europeans. This study is relevant to chronic illness generally, and to studies of managing diabetes specifically, where a basic social process of balancing, or 'walking a fine line, featured as a core variable in their findings. As the researcher I have demonstrated data 'fit' and described the study in enough detail to enable readers to decide the importance for their own practice, research, and theory development (LoBiondo-Wood & Haber, 1998; Marshall & Rossman, 1999).



This study informs readers about how Part-Europeans think about diabetes and how their cultural beliefs and values are manifested in their process of management. This study expands what is known about the use of traditional medicine and indicates the need to reconceptualise the traditional biomedical approach as the standard approach in diabetes management. This information may enable diabetes nurse educators to have a more holistic focus by incorporating a cultural framework when planning care and nursing interventions.

This study informs nursing research and practice by illustrating that although diversity exists among people of particular heritage, and within racial and ethnic groups like Pacific Islanders, it is important to remember that all people have cultural and regional diversities that influence the way that they interpret diabetes management in everyday life. As the New Zealand population becomes more ethnically and culturally diverse, the challenge for Nursing Lecturers will be to find the most effective way to provide undergraduate nursing programs that incorporate an understanding of these differences to enable culturally appropriate nursing care.

## REFERENCES

- American Diabetes Association. (2004a). Screening for type 2 diabetes. (Position Statement). *Diabetes Care*, 27(Supplement I), S11-S14.
- American Diabetes Association. (2004b). Standards of medical care in diabetes. (Position Statement). *Diabetes Care*, 27(Supplement 1), S15-S35.
- Anderson, D., Shane-McWhorter, L., Crouch, B., and Anderson, S. (2000). Prevalence and patterns of alternative medication use in a University hospital outpatient clinic serving rheumatology and geriatric patients. *Pharmacotherapy*, 8(20), 958-966.
- Anderson, R., Goddard, C., Garcia, R., Guzman, J., and Vasquez, F. (1998). Using focus groups to identify diabetes care and education issues for Latinos with diabetes. *Diabetes Educator*, 24, 618-625.
- Baker, C., Wuest, J., and Stern, P. N. (1992). Method slurring: The grounded theory/phenomenology example. *Journal of Advanced Nursing*, 17, 1355-1360.
- Baker, J. (1982). Alcoholism and the American Indian. In N. J. Estes and M. E. Heineman (Eds.), *Alcoholism: Development, consequences, and interventions* (2nd ed.). St. Louis: C.V. Mosby.
- Barlow, J., Wright, C., Sheasby, J., Turner, A., and Hainsworth, J. (2002). Self-management approaches for people with chronic conditions: A review. *Patient Education and Counselling*, 48, 177-187.
- Begg, I., and Schulzer, M. (2001). Eye disease. In H. C. Gerstein and R. B. Haynes (Eds.), *Evidence-based diabetes care* (pp. 396-428). Hamilton, Ontario Canada: BC Decker.
- Benoliel, J. Q. (1996). Grounded theory and nursing knowledge. *Qualitative Health Research*, 6(3), 406-428.
- Bolanos, E., and Sarria-Santamera, A. (2003). Perspective of patients of Type 2 diabetes and their relationship with health care professionals: A qualitative study. *Atencion Primaria*, 32(4), 195-202.
- Buchwald, D., Beals, J., and Manson, S. (2000). Use of traditional health practices among Native Americans in a primary care setting. *Medical Care*, 38(12), 1191-1199.
- Butt, L. (2002). Culture, change and well-being: Health transitions in the Pacific. *Pacific Health Dialog*, 9(2), 251-253.
- Campbell, R., Pound, P., Pope, C., Britten, N., Pill, R., Morgan, M., and Donovan, J. (2003). Evaluating meta-ethnography: A synthesis of qualitative research on lay experiences of diabetes and diabetes care. *Social Science and Medicine*, 56, 671-684.

- Capes, S., and Anand, S. (2001). What is type 2 diabetes? In H. C. Gerstein and R. B. Haynes (Eds.), *Evidence-based diabetes care* (pp. 151-163). Hamilton, Ontario: BC Decker.
- Caspi, O., Sechrest, L., Pitluk, H., Marshall, C., Bell, I., and Nichter, M. (2003). On the definition of complementary, alternative, and integrative medicine: Societal mega-stereotypes vs. the patients' perspectives. *Alternative Therapies in Health and Medicine*, 9(6), 58-62.
- Chandler, S. (1993). Crisis theory and intervention. In B. Johnson (Ed.), *Psychiatric mental health nursing: Adaptation and growth* (3rd ed., pp. 661-674). Philadelphia: Lippincott.
- Chapple, A. (1999). 'Self-care' and its relevance to developing demand management strategies: A review of qualitative research. *Health and Social Care in the Community*, 7(6), 445-454.
- Charon, J. M. (1998). *Symbolic interactionism, an introduction, an interpretation, an integration* (6th ed.). Upper Saddle River, New Jersey: Prentice Hall.
- Cheng, A., and Zinman, B. (2001). Insulin for treating type 1 and type 2 diabetes. In H. C. Gerstein and R. B. Haynes (Eds.), *Evidence-based diabetes care* (pp. 323-343). Hamilton, Ontario: BC Decker.
- Chenitz, W. C., and Swanson, J. M. (1986). *From practice to grounded theory*. California: Addison.
- Clement, S. (1995). Diabetes self-management education. *Diabetes Care*, 18, 117-126.
- Cohen, K. (1998). Native American medicine. *Alternative Therapies in Health and Medicine*, 4(6), 45-57.
- Colagiuri, S., Colagiuri, R., Hussain, Z., Na'ati, S., Muimuiheata, S., and Palu, T. (2002). The prevalence of diabetes in the Kingdom of Tonga. *Diabetes Care*, 25(8), 1378-2058.
- Colman, P., Thomas, D., Zimmet, P., Welborn, T., Garcia-Webb, P., and Moore, M. (1999). New classification and criteria for diagnosis of diabetes mellitus. The Australian Working Party on diagnostic criteria for diabetes mellitus. *New Zealand Medical Journal*, 112, 139-141.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. St. Leonards, Australia: Allen and Unwin.
- Davis, S., and Alonso, M. (2003). Hypoglycaemia as a barrier to glycemic control. *Journal of Diabetes and Its Complications*, 18, 60-68.
- Dean, K. (1989). Conceptual, theoretical and methodological issues in self-care research. *Social Science and Medicine*, 29(2), 117-123.

- Dey. (1999). *Grounding grounded theory: Guidelines for qualitative inquiry*. San Diego: Academic Press.
- Dey, L., Attele, A. S., and Yuan, C. S. (2002). Alternative therapies for type 2 diabetes. *Alternative Medicine Review*, 7(1), 45-59.
- Diabetes New Zealand, and PricewaterhouseCoopers. (2001). *Type 2 diabetes: Managing for better health outcomes*. Wellington, N.Z.: Diabetes New Zealand Inc.
- Donovan, J. L. (1995). Patient decision making the missing ingredient in compliance research. *International Journal of Technology Assessment in Health Care*, 11(3), 443-456.
- Drury, P., and Cutfield, R. (2000). *NZSSC staffing survey 1999-2000 – summary of results*: National Diabetes Working Group 2000.
- Eakin, E., Bull, S., Glasgow, R., and Mason, M. (2002). Reaching those most in need: A review of diabetes self-management interventions in disadvantaged populations. *Diabetes/metabolism Research and Reviews*, 18, 26-35.
- ECDCDM. (2003). Report of the Expert Committee on the diagnosis and classification of diabetes mellitus. *Diabetes Care*, 26(1), S5-S16.
- Eisenberg, D. M. (1997). Advising patients who seek alternative medical therapies. *Annals of Internal Medicine*, 127, 61-69.
- Field, P. (1989). Doing fieldwork in your own culture. In J. M. Morse (Ed.), *Qualitative nursing research: A contemporary dialogue*. Chicago: Aspen.
- Finau, S. (1980). Traditional medicine in Pacific health services. *Pacific Perspective*, 9(2), 92-98.
- Galvan, F., and Caetano, R. (2003). Alcohol use and related problems among ethnic minorities in the United States. *Alcohol Research and Health*, 27(1), 87-94.
- Geraghty, P. (1997). The ethnic basis of society in Fiji. In B. Lal and T. Vakatora (Eds.), *Fiji in transition: Research papers of the Fiji Constitution review committee* (Vol. 1, pp. 1-23). Suva: SSED, USP.
- Gilbert, P. (2000). The relationship of shame, social anxiety and depression: the role of the evaluation of social rank. *Clinical Psychology and Psychotherapy*, 7, 174-178.
- Gilbert, P., and Andrews, B. (1998). *Shame interpersonal behaviour, psychopathology and culture*. New York: Oxford University Press.
- Glaser, B. G. (1978). *Theoretical sensitivity advances in the methodology of grounded theory*: Mill Valley, CA: The Sociology Press.

- Glaser, B. G. (1992). *Emergence vs forcing: Basics of grounded theory analysis*. Mill Valley, CA: The Sociology Press.
- Glaser, B. G. (2001). *The grounded theory perspective: Conceptualisation contrasted with description*. Mill Valley, CA: The Sociology Press.
- Goguen, J., and Leiter, L. (2001). Alternative therapy: The role of selected minerals, vitamins, fiber, and herbs in treating hyperglycaemia. In H. C. Gerstein and R. B. Haynes (Eds.), *Evidenced-based diabetes care* (pp. 295-322). Hamilton, Ontario, Canada: BC Decker.
- Guthrie, D. W., and Guthrie, R. A. (1997). *Nursing management of diabetes mellitus. A guide to the pattern approach* (4th ed.). New York: Springer.
- Harris, S. B., Petrella, R. J., and Leadbetter, W. (2003). Lifestyle intervention for Type 2 diabetes – relevance for clinical practice. *Canadian Family Physician*, 49(December 2003), 1618-1625.
- Harris, S. B., and Zinman, B. (2000). Primary prevention of Type 2 diabetes in high-risk populations. *Diabetes Care*, 23(7), 879-881.
- Holloway, I., and Wheeler, S. (2002). *Qualitative research in nursing* (2nd ed.). Oxford, UK: Blackwell Science.
- Hoover, J. (1997). The patient's perspective. In D. W. Guthrie and R. A. Guthrie (Eds.), *Nursing management of diabetes mellitus. A guide to the pattern approach* (4th ed., pp. 415-426). New York: Springer.
- Howe, K. R., Kiste, R. C., and Lal, B. V. (Eds.). (1994). *Tides of history: The Pacific Islands in the twentieth century*. St Leonards, NSW Australia: Allen and Unwin.
- Hunt, D. (2001a). Delivery of diabetes care. In H. C. Gerstein and R. B. Haynes (Eds.), *Evidence-based diabetes care* (pp. 569-573). Hamilton, Ontario Canada: BC Decker.
- Hunt, D. (2001b). Diseases of the feet: Foot ulcers and amputations in people with diabetes mellitus. In H. C. Gerstein and R. B. Haynes (Eds.), *Evidence-based diabetes care* (pp. 515-522). Hamilton, Ontario Canada: BC Decker.
- Hutchinson, S. A. (1986). Grounded theory: the method. In P. L. Munhall and C. J. Oiler (Eds.), *Nursing research: A qualitative perspective* (pp. 111-130). Norwalk, CT: Appleton-Century-Crofts.
- Jerreat, L. (1999). *Diabetes for nurses*. London: Whurr.
- Jump, J., Yarbrough, L., Kilpatrick, S., and Cable, T. (1998). Physicians' attitudes toward complementary and alternative medicine. *Integrative Medicine*, 1(4), 149-153.
- Kelly, D. L. (1966). *The part-Europeans of Fiji*. Unpublished Master of Science in Geography, Victoria University, Wellington, New Zealand.

- King, H., Aubert, R., and Herman, W. (1998). Global burden of diabetes, 1995-2025. *Diabetes Care*, 21, 1414-1431.
- Kirmayer, L. J., Brass, G. M., and Tait, C. L. (2000). The mental health of Aboriginal Peoples: Transformations of identity and community. *Canadian Journal of Psychiatry*, 45(7), 607-707.
- Kligler, B., and Lynch, D. (2003). An integrative approach to the management of type 2 diabetes mellitus. *Alternative Therapies in Health and Medicine*, 9(6), 24-32.
- Lako, J., .V. (2001). Dietary trend and diabetes: Its association among indigenous Fijians 1952 to 1994. *Asia Pacific Journal of Clinical Nutrition*, 10(3), 183-187.
- Lal, B. (1992). *Broken waves: A history of the Fiji islands in the twentieth century*. Hawaii: University of Hawaii Press. Pacific Islands Monograph Series, No 11.
- Lal, B., and Vakatora, T. (Eds.). (1997). *Fiji in transition: Research papers of the Fiji Constitution review committee* (Vol. 1). Suva: SSED, USP.
- Lewis, H. (1971). *Shame and guilt in neurosis*. New York: International University Press.
- LoBiondo-Wood, G., and Haber, J. (1998). *Nursing research methods, critical appraisal, and utilisation* (4th ed.). St. Louis, Missouri: Mosby.
- Marakis, G., Walker, A., Ferris, D., Simpson, H., and Morris, A. (2002). Survey of dietary supplement use in people with diabetes. *Diabetes and Primary Care*, 3(4), 118-123.
- Marshall, C., and Rossman, G. B. (1999). *Designing qualitative research* (2nd ed.). Newbury Park, CA: Sage.
- Maykut, P., and Moorhouse, R. (1994). *Beginning qualitative research, a philosophic and practical guide*. London: Falmer Press.
- McCance, K. L., and Heuther, S. E. (1998). *Pathophysiology: The biologic basis for disease in adults and children* (3rd ed.). USA: Mosby.
- Melia, K. M. (1996). Rediscovering Glaser. *Qualitative Health Research*, 6(3), 368-378.
- Ministry of Health. (2002). *News and Issues – Media Releases: Ministry addressing diabetes in many ways*, from <http://www.moh.govt.nz/mohnsf/3>
- Mishra, S. I., and Hess, J. (2003). Predictors of indigenous healer use among Samoans. *Alternative Therapies in Health and Medicine*, 9(6), 64-69.
- Morse, J. M., and Field, P. (1995). *Qualitative research methods for health professionals*. (2nd ed.). London: Sage.

- Nyhlin, K. T. (1990). Diabetic patients facing long-term complications: Coping with uncertainty. *Journal of Advanced Nursing*, 15, 1021-1029.
- Nyhlin, K. T. (1991). The fine balancing act of managing diabetes. *Scandinavian Journal of Caring Sciences*, 5(4), 187-194.
- Olson, R. (2000). An update in diabetes management. *Rehabilitation Nursing*, 25(5), 177-185.
- Osborne, G. (1998). *Kai Loma: An exploratory study of the ethnic identity among young Part-Europeans in Fiji*. Suva, Fiji: University of the South Pacific.
- Paterson, B. L., Thorne, S., and Dewis, M. (1998). Adapting to and managing diabetes. *Image: Journal of Nursing Scholarship*, 30(1), 57-62.
- Piette, J., and Glasgow, R. (2001). Education and home glucose monitoring. In H. C. Gerstein and R. B. Haynes (Eds.), *Evidenced-based diabetes care* (pp. 207-251). Hamilton, Ontario Canada: BC Decker.
- Poural, N., Lubben, J., Wallace, S., and Moon, A. (1999). Predictors of use of traditional Korean healers among elderly Koreans in Los Angeles. *Gerontologist*, 6(39), 711-719.
- Proot, I., Abu-Saad, H., Crebolder, H., Goldsteen, M., Luker, K., and Widdershoven, G. (2003). Vulnerability of family caregivers in terminal palliative care at home: Balancing between burden and capacity. *Scandinavian Journal of Caring Sciences*, 17(2), 113-121.
- Ram, P., Banuve, S., Zimmet, P., Taylor, R., King, H., Sloman, G., Hunt, D. (1982). Diabetes in Fiji: The results of the 1980 National survey. *Fiji Medical Journal*, 10, 4-13.
- Ravuvu, A. D. (1987). *The Fijian ethos*. Suva, Fiji: Institute of Pacific Studies.
- Rhiley, D. S. (1997). Psychosocial considerations. In D. W. Guthrie and R. A. Guthrie (Eds.), *Nursing management of diabetes mellitus: A guide to the pattern approach* (pp. 159-175). New York, NY: Springer.
- Riles, A. (1997). Part-Europeans and Fijian: Some problems in the conceptualisation of a relationship. In B. Lal and T. Vakatora (Eds.), *Fiji in transition: Research papers of the Fiji Constitution Review Commission*, (Vol. 1, pp. 105-129). Suva: SSED.
- Robbins, J., Vaccarino, V., Zhang, H., and Kasl, S. (2001). Socioeconomic status and type 2 diabetes in African American and non-Hispanic white women and men: Evidence from the Third National Health and Nutrition Examination Survey. *American Journal of Public Health*, 91, 76-83.
- Rossmann, G. B., and Rallis, S. (1998). *Learning in the field: An introduction to qualitative research*. Thousand Oaks, California: Sage.

- Rubin, R. R., and Peyrot, M. (1999). Quality of life and diabetes. *Diabetes Metabolism Research and Reviews*, 15, 205-218.
- Ruggiero, L., Glasgow, R., Dryfoos, J., and Rossi, J. (1997). Diabetes self-management: Self-reported recommendations and patterns in a large population. *Diabetes Care*, 20(4), 568-577.
- Sadlier, C. (2002). Gaining insight into the experience of diabetes. *Kai Tiaki, Nursing New Zealand*, 14-18.
- Salimbene, S. (1999). Cultural competence: A priority for performance improvement action. *Journal of Nursing Care Quality*, 13(3), 23-35.
- Sandelowski, M. (1986). The problem of rigour in qualitative research. *Advance in Nursing Science*, 8(3), 27-37.
- Saudek, C. (2002). The role of primary care professionals in managing diabetes. *Clinical Diabetes*, 20(2), 65-66.
- Schaefer, K. (1995). Struggling to maintain balance: a study of women living with fibromyalgia. *Journal of Advanced Nursing*, 21, 95-102.
- Sharma, U. (1992). *Complementary medicine today: Practitioners and patients*. London: Routledge.
- Shaw, J., Zimmet, P., McCarty, D., and De Courten, M. (2000). Type 2 diabetes worldwide according to the New Classification and Criteria. *Diabetes Care*, 23(Supplement 2), 5-10.
- Simmons, D. (1996). Diabetes in Maori and Pacific Islands people. *Patient Management*, March/April, 13-19.
- Simmons, D. (1999). Diabetes in Maori and Pacific Islands people. *Patient Management*, March/April, 13-19.
- Simmons, D., Shaw, L., Kenealy, T., and Scragg, R. (1994). Ethnic differences in diabetes knowledge and education: The South Auckland Diabetes Survey. *New Zealand Medical Journal*, May 107, 197-200.
- Simmons, D., and Voyle, J. A. (1996). Psychosocial and behavioural aspects of NIDDM among Pacific Islanders in South Auckland. *Pacific Health Dialog*, 3(1), 100-106.
- Simpson, S. (1974). *The Part-European community in Fiji*. Suva, Fiji: South Pacific Social Sciences Association.
- Spachee. (1996). Proceedings of 2nd Women's Traditional Medicine Workshop. *Women's International Network News*, 22(1), 23-27.



- Speight, J., and Bradley, C. (2001). The ADKnowl: Identifying knowledge deficits in diabetes care. *Diabetic Medicine*, 18, 626-633.
- Stanley, D. (1996). *Fiji Islands handbook*. Emeryville, CA: Moon Publications.
- Strathy, K. (2000). Wainimate, valuing women's traditional medicine knowledge in Fiji. *Women's International Network News*, 24(2), 30-32.
- Strauss, A., and Corbin, J. (1998). *Basics of qualitative research techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage.
- Streubert, H., and Carpenter, D. (1995). *Qualitative research in nursing: Advancing the humanistic imperative*. Philadelphia: Lippincott.
- Thulesius, H., Hakansson, A., and Petersson, K. (2003). Balancing: A basic process in end-of-life cancer care. *Qualitative Health Research*, 13(10), 1353-1377.
- Townsend, M. (1999). *Psychiatric mental health nursing*. Philadelphia: F.A. Davis.
- Trotter, G. (2000). Culture, ritual, and errors of repudiation: Some implications for the assessment of alternative medical traditions. *Alternative Therapies in Health and Medicine*, 6(4), 62-8.
- Tsalikian, E. (1990). Insulin- dependent (Type 1) diabetes mellitus: Medical overview. In C. S. Holmes (Ed.), *Neuropsychological and behavioural aspects of diabetes* (pp. 3-11). New York: Springer-Verlag.
- Tuch, B., Dunlop, M., and Proietto, J. (2000). *Diabetes research: A guide for postgraduates*. Amsterdam: Harwood Academic.
- Wahlqvist, M. (2001). Nutrition and diabetes in the Asia-Pacific region with reference to cardiovascular disease. *Asia Pacific Journal of Clinical Nutrition*, 10(2), 90-96.
- Wainimate. (1997). Wainimate – women's association for natural medicinal therapy. *Women's International Network News*, 23(2), 42-46.
- Wallberg-Henriksson, H. (1992). Exercise and diabetes mellitus. *Exercise and Sport Sciences Reviews*, 12, 72-77.
- Watkins, P. (1998). *ABC of diabetes* (4th ed.). London: BMJ.
- Weiner, M. (1989). *Secrets of Fijian medicine*. Berkley, USA: University of California.
- Weisman, A. D. (1972). *On death and denying*. New York: Behavioural publication.

- White, R., Sherman, C., and DiNubile, N. (1999). Exercise in diabetes management: Maximising benefits, controlling risks. *The Physician and Sportsmedicine*, 27(4), 63-73.
- Wikblad, K. F. (1991). Patient perspectives of diabetes care and education. *Journal of Advanced Nursing*, 16(7), 837-844.
- Wilkinson, J., and Simpson, M. (2001). Complementary therapy use by nursing, pharmacy and biomedical students. *Nursing and Health Sciences*, 3, 19-27.
- Yeh, G. Y., Eisenberg, D. M., Davis, R. B., and Phillips, R. S. (2002). Use of complementary and alternative medicine among persons with diabetes mellitus: Results of a national survey. *American Journal of Public Health*, 92(10), 1648-1652.

## **LIST OF APPENDICES**

Appendix A	Ethics Committee Approval
Appendix B	Glossary of Medical Terms
Appendix C	Study Information Sheet
Appendix D	Consent Form
Appendix E	Transcriber Confidentiality Agreement
Appendix F	Self-Care Questionnaire
Appendix G	Theoretical Questioning
Appendix H	Field Notes Example
Appendix I	Memos Example
Appendix J	Diagrams
Appendix K	Diagrams

## MEMORANDUM

**Academic Registry – Academic Services**

---

To: Terry Weblemoe  
From: **Madeline Banda**  
Date: 18 December 2002  
Subject: 02/146 The process of daily managing type 2 diabetes: the Fijian experience

Dear Terry

Thank you for providing amendment and clarification of your ethics application as requested by AUTECH.

Your application is approved for a period of two years until 18 December 2004.

You are required to submit the following to AUTECH:

- A brief annual progress report indicating compliance with the ethical approval given.
- A brief statement on the status of the project at the end of the period of approval or on completion of the project, whichever comes sooner.
- A request for renewal of approval if the project has not been completed by the end of the period of approval.

Please note that the Committee grants ethical approval only. If management approval from an institution/organisation is required, it is your responsibility to obtain this.

The Committee wishes you well with your research.

Please include the application number and study title in all correspondence and telephone queries.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Madeline Banda'.

Madeline Banda

**Executive Secretary**

**AUTECH**



## Medical Terms

***Aetiology:*** the study of what causes a disease

***Adrenaline:*** also called epinephrine, one of the secretions of the adrenal glands that help the liver release glucose and limit the release of insulin. It also makes the heart beat faster.

***Blood Glucose:*** the main sugar that the body makes from the three main elements of food; proteins, fats, and carbohydrates, but mostly from carbohydrates. Glucose is the major source of energy for living cells and is carried to each cell through the bloodstream. However the cells cannot use glucose without the help of insulin.

***BGSM:*** blood glucose self-monitoring is the way a person can test how much glucose (sugar) is in the blood, also called home blood glucose monitoring (HBM).

***Cataract:*** clouding of the lens of the eye.

***Chronic:*** present over a long period of time.

***Dialysis:*** a method for removing waste from the blood when the kidneys can no longer do the job. The two types of dialysis are: hemodialysis and peritoneal dialysis. In hemodialysis, the person's blood is passed through a tube into a machine that filters out waste products. The cleansed blood is then returned into the body.

***Dietician:*** an expert in nutrition who helps people with special health needs plan the kinds and amounts of food to eat.

**Gangrene:** the death of body tissue. It is most often caused by loss of blood flow, especially in the legs and feet.

**GP:** a doctor who is a general practitioner

**Glycogen:** a substance made up of sugars. It is stored in the liver, and muscles and releases glucose into the blood when needed by cells

**Glycogenesis,** or glucogenesis: the process by which glycogen is formed into glucose.

**HbA1C:** glycated hemoglobin, the substance of red blood cells that carries oxygen to the cells and sometimes joins with glucose. Because the glucose stays attached for the life of the cell (about 4 months), a test to measure hemoglobin A1C shows what the person's average blood glucose level was for that period.

**HDL:** high-density lipoproteins

**Hypertension:** blood pressure that is above the normal range of 120/80, also referred to as high blood pressure when the blood flows through the vessels at a greater rate than normal force. Hypertension strains the heart; harms the arteries; and increases the risk of heart attack, stroke, and kidney problems.

**Hyperglycemia:** too high a level of glucose (sugar) in the blood; a sign that diabetes is out of control and can occur when the body does not have enough insulin, or cannot use the insulin it does have to turn glucose into energy. Signs of hyperglycemia are great thirst (polydipsia), great hunger (polyphagia), and or frequent urination (polyuria).

**Hypoglycemia:** too low a level of glucose in the blood. This can occur when a person with diabetes has injected too much insulin, eaten too little food, or has exercised without extra food. A person with hypoglycemia may feel nervous, shaky, weak, or sweaty and have a headache, blurred vision, and hunger. Taking

small amounts of sugar, sweet juice, or food with sugar will usually help the person feel better within 15-20 minutes.

***Hormone:*** a chemical released by special cells to tell other cells what to do. For instance insulin is a hormone produced by the beta cells in the pancreas. When released, insulin tells other cells to use glucose for energy.

***Hyperlipidemia:*** too high a level of fats (lipids) in the blood. See Syndrome X.

***Hyperinsulinemia:*** too high a level of insulin in the blood. The term most often refers to a condition in which the body produces too much insulin that plays a role in the development of Type 2 diabetes and in hypertension. See Syndrome X.

***Impaired glucose tolerance (IGT):*** a condition that occurs when the level of glucose in the blood is higher than normal but not high enough to be called diabetes. People with IGT may or may not develop diabetes.

***Insulin:*** a hormone that helps the body use glucose for energy. The beta cells of the pancreas (in areas called islets of Langerhans) make the insulin. When the body cannot make enough insulin on its own, a person with diabetes must inject insulin made from other sources, i.e., beef, pork derived semisynthetic.

***Insulin resistance:*** many people with non-insulin-dependant diabetes produce enough insulin, but their bodies do not respond to the action of insulin. Insulin resistance is linked to high blood pressure and high levels of fat in the blood.

***LDL:*** low density lipoproteins

***Macrovascular disease:*** a disease of the large blood vessels that can occur when a person has had diabetes for a long time. Fat and blood clots build up in the large blood vessels and stick to the vessel walls. Three kinds of macrovascular disease are coronary disease, cerebrovascular disease, and peripheral disease.

***Microvascular disease:*** disease of the smallest blood vessels that can occur when a person has diabetes for a long time. The walls of the vessels become abnormally thick but weak, and therefore they bleed, leak protein, and slow the flow of blood through the body. Then some cells, for example the ones in the centre of the eye, may not get enough blood and become damaged.

***Neuropathy:*** disease of the nervous system. Peripheral neuropathy mainly affects the feet and the legs and may result in pain, loss of sensation, and muscle weakness.

***Nephropathy:*** disease of the kidneys caused by damage to the small blood vessels or to the units in the kidneys that clean the blood.

***Obesity:*** when people have 20 percent (or more) extra fat for their age, height, sex, and bone structure. Fat works against the action of insulin. Extra body fat is a risk factor for developing diabetes.

***Oral glucose tolerance test, (OGTT):*** a test to see if a person has diabetes. The test is given in a laboratory in the morning before a person has eaten. A first sample of blood is taken from the person. Then the person drinks a liquid that has glucose in it. After an hour, the second blood sample is drawn, and, after another hour, a third sample of blood is take. This is to see how well the body deals with the glucose in the blood over a period of time.

***Pancreas:*** an organ behind the lower part of the stomach that is about the size of hand. It makes the insulin so that the body can use glucose for energy. It also makes enzymes that help the body digest food. Spread all over the pancreas are areas called the islets of Langerhans. The cells in these areas each have a special purpose.

***Peripheral vascular disease, (PVD):*** is a disease in the large blood vessels of the arms, legs, and feet. People who have had diabetes for a long time may get this



because major blood vessels in their arms and feet are blocked and these limbs do not receive enough blood.

***Podiatrist:*** a person that takes care of people's feet

***Polyphagia:*** great hunger; a sign of diabetes. People with this great hunger often lose weight.

***Polydipsia:*** great thirst that lasts for long periods of time, a sign of diabetes.

***Polyuria:*** having to urinate often; a common sign of diabetes.

***Prevalence:*** the number of people in a given group or population who are reported to have the disease.

***Retina:*** is the centre part of the back of the eye that senses light and has many small blood vessels that are sometimes harmed when people have had diabetes for a long time.

***Retinopathy:*** a disease of the small blood vessels in the retina of the eye.

***Risk Factor:*** anything that raises the chance that a person will get a disease.

***Ulcer:*** a break in the skin; a deep sore. People with diabetes may get ulcers from minor scrapes on the feet or legs, from cuts that heal slowly, or from the rubbing of shoes that do not fit well.

## Participant Information Sheet



**Project Title: The process of daily managing type 2 diabetes: The Fijian experience**

**Invitation:** As a Fijian and a nurse educator at the Auckland University of Technology I would like to invite you to participate in a study of how Fijians manage their lives around having type 2 diabetes. This research has been approved by the Auckland University of Technology Ethics Committee and will form a thesis that is part of the fulfilment toward a Masters degree.

### **How was a person chosen to be asked to be part of the study?**

I am interested in how Fijians with diabetes manage everyday to live with type 2 diabetes and the daily decisions that are involved in keeping yourself well. I am asking volunteers who are Fijian and have diabetes that I know personally or are recommended to me if they would like to be part of this study.

### **What are the benefits?**

The more the Health Care Service understands how Fijians manage their diabetes, the better they will be able to tailor support and treatments to keep you healthy and improve your future quality of life.

### **What happens in the study?**

I would like to interview you one at a time and a place that suits you. This will take about 30 to 90 minutes. Before I write my report I will contact you for a short second interview to make sure that what I have recorded is correct. You have the right to refuse to answer any questions; the right to change what you have said, or end the interview at any time.

### **How is your privacy protected?**

Everything that you say to me will be kept confidential. Your name and any details about you will not be associated with the information you give me. You can even choose a completely different name for the purpose of this study.

### **What is the purpose of the study?**

Besides the benefit of information to Health Care Services to give you the right type of support and treatment that would help you and other Fijians to manage even better this study will form part of a fulfilment towards a masters degree.

### **Participant Concerns:**

If you have any concerns regarding the nature of this project, please contact my project supervisor: Terry Weblemoe at 917-9999 ext 7035 or 025 277 7530. If you have any concerns regarding the conduct of the research, please contact the Executive Secretary of Research Ethics, AUTECH, Madeline Banda, at [madeline.banda@aut.ac.nz](mailto:madeline.banda@aut.ac.nz), or 917 9999 ext 8044.

Upon completion of this research I will invite you to a public presentation of my results at a convenient location in the Fijian community. I will give participants a copy of the report at that time if they wish to have one. I would consider it an honour and a privilege to interpret your story and if you agree to participate I would like you to sign your consent on the consent form provided.

Yours sincerely,

Sandra Marcia Simpson (Researcher)

Approved by the Auckland University of Technology Ethics Committee on **19 November 2002**. AUTECH Reference number **02/146**.

**Consent to Participation in Research**

Title of Project: **The process of daily managing  
Type 2 Diabetes: The Fijian experience**

Project Supervisor: Terry Weblemoe 9179999 ext 7035 mob 0252777530

Researcher: Sandra Marcia Simpson wk. 9179999 ext 7214 hm.  
4821516

---

- I have read and understood the information provided about this research project.
- I have had an opportunity to ask questions and to have them answered.
- I understand that the interview will be audio-taped and transcribed.
- I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way. If I withdraw, I understand that all relevant tapes and transcripts, or parts thereof, will be destroyed
- I agree to take part in this research.

Participant signature: .....

Participant name:.....

Date:

Project Supervisor Contact Details:  
Terry Weblemoe,  
Nurse Lecturer.  
Auckland University of Technology  
Private Bag 22006,  
Akoranga Drive,  
Auckland  
Phone 9179999 ext. 7035

Approved by the Auckland University of Technology Ethics Committee on 19  
November 2002  
AUTEK Reference number 02/146.

## **Appendix E:           Transcriber Confidentiality Agreement**

### **Transcriber Confidentiality agreement**

Thank you for agreeing to transcribe audiotapes by the researcher and participants of a research study. Please transcribe the audiotape as you hear it verbatim and unedited. If any problems should arise during this process the researcher will be readily available for consultation and available to answer any questions.

As this is a confidential process the participants of this study will not be identified by name but will be given a number assigned by the researcher.

Contents of the audiotapes are confidential and as such should not be discussed with anyone but the researcher. By signing this you will be agreeing to the conditions set out in this form.

I agree to the conditions contained in this confidentiality agreement.

Transcriber: Your full name.....

Your signature:.....

**Self-care questionnaire interview guide**

Tell me how and when you discovered that you had diabetes and what/how it was like.

Were you given any information about diabetes at the time of your diagnosis?

Did you make any changes in your lifestyle after you were diagnosed, like your diet, and/or exercise? And were there any difficulties?

How often do you take your blood sugar levels/what sort of equipment do you use?

Any special changes to your routine, or behaviour socially since diagnosed?

Were there any changes in particular that you felt were really difficult to make?

What sort of medical support did you receive when you were first diagnosed?

What type of medical support/treatment do you receive now?

What type of medical support would you like?

Is there any other type of other support that you would like?

Do you have family support (if answer yes, ask did you always have family support?)

Is there anyone else in the family with diabetes?

Differences in treatment in Fiji/New Zealand?

Do you experience any problems with your eyesight/feet /blood sugar levels and how do you manage these problems?

## **Appendix G:           Theoretical Questioning**

### **Example of theoretical questioning of emergent categories.**

#### **Category of Sticking with the Tried and True**

I am hearing that Fijian medicine plays a big part in people's managing process.

Do you also or did you ever take Fijian medicine? Under what conditions did you take Fijian medicine? Why do you take it? Which one do you take? When do you take it? How often do you take it? What do you take it for? How long have you been taking this medicine? How much of this do you take? When do you take it?

How do you think that it helps?

#### **Category of Making Some Changes**

How did you gain some knowledge about managing your diabetes? When did you gain that knowledge and how did this affect your ability to manage your blood sugars and your lifestyle? What were the changes that you felt had to be made around your life and managing diabetes? When did you find yourself making these changes? What was the biggest change that you felt had to be made? How did make these changes? Did anyone help you make these changes, and what difference has this made now?

**Field Notes Example**

Participant ID Number: A

Interview Date 2nd February 2003

**Interview Context**

At home alone at first, then wife came in and made a cup of tea. I had to turn off the tape to be sociable and chat for a while. Opened the fridge to show me the Noni juice and talked about difficulty of getting layalaya over from Fiji, who's getting it and from where and where the best source of it is. We talked about the mother in-law who was also diabetic. Showed me around outside where he had done some landscaping and how he had over exerted himself one day. He showed me the tree that he laid down under for a rest. He had a hypoglycemic episode and was found by his wife when she came home. Counts himself lucky that she came home from work straight away and didn't stop over anywhere or 'I might have been a goner'.

**Physical environment.**

Very quiet, no noise or distraction until wife arrived but even then she was not intrusive. Went outside to show me the tree and explained the amount of work that he gets through during the day. Also showed me the treadmill and explained how it neatly folds up and stows away. Showed me his notebook that he keeps an account of his insulin units and the record entries of his blood glucose, pointing out the times and modifications that he has made and why he made them in what conditions and context that they were made.

**Personal reflections.**

The one thing about his demeanour, and voice tone that struck me most significantly during the first interview was the regret that seemed to come through many of his sentences. Regret that he carried on without modifying his lifestyle. 'I was drinking heavily' and how he lied about his diet to dietician, the portions, amounts he ate even while knowing that they must have known he was lying. Something else that struck me as significant was 'The GP is the first line of defence'. He was very passionate about how GPs need to refer on, that they are 'not pushing it further', that they give 'insufficient information', that they have a



‘take this and go way attitude’. Was adamant that doctors are not pushing it further and not acknowledging that they are not specialists in the field.

**Theoretical insights to follow up**

**(Not referring on, doctor patient relationship?) (Alcohol.) (Traditional medicine.) (Hypoglycemic episodes.)**

Check if the next participant also carried on without modifying lifestyle, will really need to ask what changes were made and when and how. Did the doctor refer him on to specialist care? Look into terms of doctor-patient relationship. Ask about alcohol. What part does alcohol play in the next participant’s life? Also ask about hypos, when if any, and how many, and under what conditions did they happen.

**Memos**

- There appear to be stages or processes that they go through. I need to clarify stages
- Are the stages as distinct as they first appear?
- What defines this is that something went wrong
- Were there major life events attached to stages of illness? Post diagnosis
- Were the early days characterised by carrying on eating and drinking as before? Does family history change this or slow this down?
- Middle and latter stages – there appears to be mourning or regret for the earlier carelessness or careless disregard, but did they all do this?
- Check whether there was a major event that was personal to their health, like a toe fell off or the threat of amputation. Whereas in the earlier diagnostic stage there was a lack of tangible evidence. There were no effects; a silent, invisible, intangible disease that bore no relation to who they were at the time. Did they then have some tangibility and how, and what was it?
- Check whether, throughout all of the stages, there was a taking of the traditional with the pharmacological or was it just the traditional with the later incorporation of the pharmacological?
- Was the traditional always there, part of the daily tonic, so to speak?
- Did some of them turn to the traditional after diagnosis and not before?
- Did some of them use both traditional and pharmacological together? If they did, how soon after diagnosis? Was it a tinkering or was it with certain belief in the efficacy?
- What does data give i.e. bravado, defiance or careless disregard?
- Any logic or appraising of the diagnosis? Were they selecting some advice and ignoring others like not taking any sugar in diet but still drinking alcohol (to excess)?
- What was the logic involved? ... 'I'll do it tomorrow?' or lack of tangible evidence? 'I feel well so I'll ignore it'?
- Were there stages of grief involved in this logic or appraising of the situation?
- Does gender matter? Do they do it differently?
- Did any of them do it differently under conditions where family managed well?
- Did they select and prioritise life style changes? How do they access diagnosis? Did they seek it out because of family history or prior experience or knowledge

of disease? Was it a random testing? Was it through symptoms like excessive thirst, poor wound healing, weight loss etc.? What are they doing with the diagnosis?

- Look into assumptions of Part-European lifestyle: drinking, lifestyle comparison between 'non-excessive lifestyle' people in relation to 'excessive lifestyle'. Do they all do the same? How did they respond to GP?

**Early phase Question: Careless disregard,** stages of living with that disease. I didn't control it. I didn't care. Tomorrow isn't here yet. Is it cultural? I knew but I really didn't know. Had they any understanding/experience of others with the disease when first diagnosed? Does this change how they first react/act?

**Middle phase Question:** After stopped excess was it when something went wrong? Was it a health event or something personal like migration, what happened?

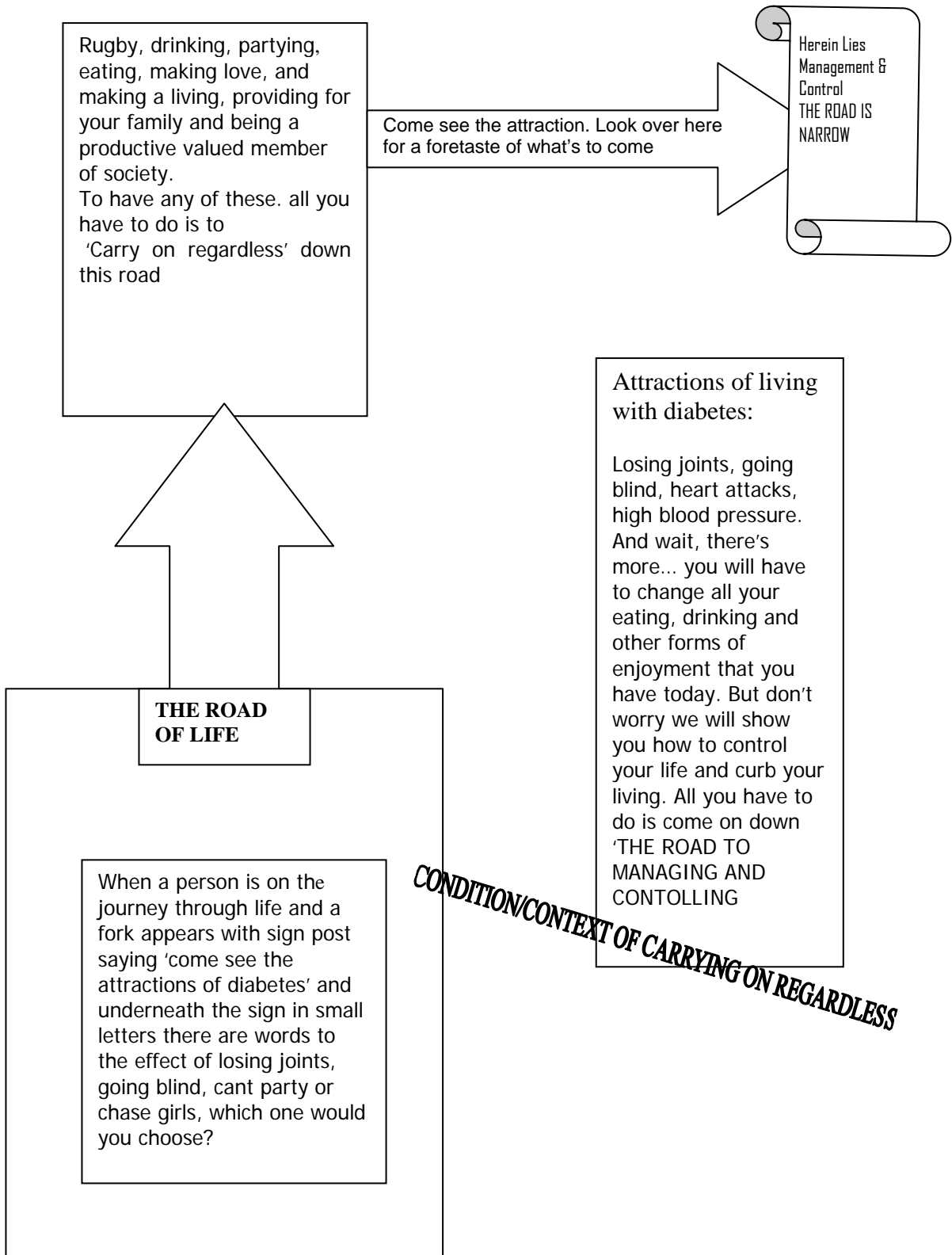
**Latter stage:** Making the most of it, getting on with it. Was there some personal insight or reflection on the past? What changed for them?

**Medicinal Tinkering:** Traditional/pharmaceutical, is it received reality from infancy or from other informants? What are the beliefs behind this??

Do the effects' silence & invisibility translate into a lack of evidence leading to carrying on as before or denial or reconstruction of diagnosis?

## Appendix J: Diagrams

**The diagnosis of diabetes and the road of life: Carrying on Regardless is not so strange in the context of invisibility and the narrowing of life and living when one has to change everything that makes life enjoyable.**

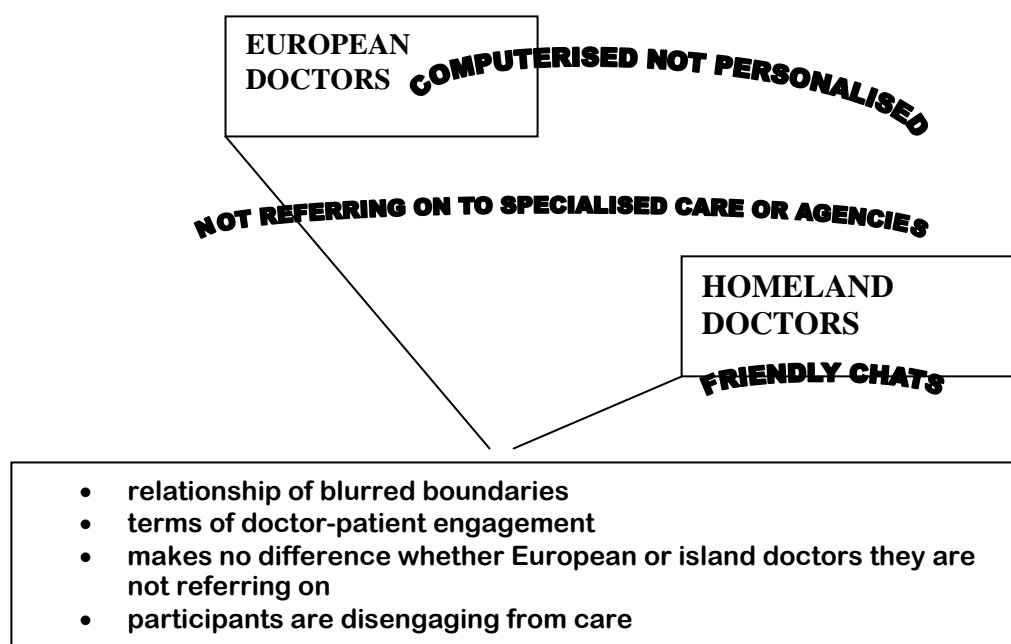


**Diagrams connecting to memos: BARRIERS TO CARE: lacking knowledge and lacking referrals**

Is managing diabetes different for each phase/stage of the illness but with connected processes? Like connected processes of interacting with treatment providers. How does this change over time?

Interview person with good rapport/engagement with physician GP

Does this make a difference to the consequences of managing? NO it does not.



Early stages of diagnosis: barriers of doctor-patient engagement leading to disengagement

Middle stage defined by health event complications that make for changing doctors

Latter stage defined by gaining knowledge, and choosing conventional care from doctors or Straddling the Line of both traditional and conventional care