Te Huanga o te Ao Māori

Cognitive Behavioural Therapy for Māori clients with depression - Development and evaluation of a culturally adapted treatment programme.

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This doctoral thesis is dedicated to the memory of a wonderful nana. The values that she has instilled in her whanau will benefit many generations to follow. Nga mihi aroha kia koe te whaea.

Elaine Jocelyn Bennett

June 4th 1926 – April 12th 2008

ABSTRACT

A manualised cognitive behavioural therapy (CBT) programme was culturally adapted for use with adult Māori clients with depression who were receiving treatment from Te Whare Marie, a Māori Mental Health service that covers the greater Wellington region. The manual was developed in consultation with local and international literature pertaining to CBT with minority groups and the recommendations of an advisory team. The treatment programme integrated significant Māori concepts with the traditional strategies associated with CBT. The intervention was trialled with 16 Māori clients from Te Whare Marie with a primary diagnosis of depression. Case study and group analysis indicated that the adapted intervention was effective in reducing depressive symptomatology and negative cognition, and increasing general wellbeing in four culturally relevant dimensions. Differences between pre- and post- treatment scores were statistically significant in each of these areas. The intervention did not have a significant impact on the construct of cultural identity. Participants expressed high levels of satisfaction with the treatment, and in general the adaptations were positively received. Treatment was characterised by particularly low dropout rates with 15 of the 16 participants attending seven or more sessions. These results were discussed with reference to their implications for effective delivery of clinical service delivery to Māori consumers of mental health services in New Zealand.

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fun, adventure and love. To my three beautiful daughters Elena, Grace and Piata, you've have had to put up with your Dad being absorbed in the often selfish pursuit of writing a doctoral dissertation for the best part of four years, thanks for being such an inspiration and such awesome girls. And to my wonderful wife Emma, you've been my biggest supporter; your unwavering faith in my ability to complete this project has been a great source of motivation. You've sacrificed many hours of time together, which I intend making up for in the coming years. Words couldn't do justice to my appreciation for everything you've done but my heartfelt thanks go to you for your friendship and love.

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Chapter 1 – Introduction

E tipu e rea mo nga ra o tou ao.
Ko to ringa ki nga rakau o te Pākehā hei ara mo to tinana.
Ko to ngakau ki nga taonga a o tipuna Māori hei tikitiki mo to mahuna.
Ko to wairua ki te Atua, nana nei nga mea katoa.

Grow up and thrive for the days destined to you.
Turn your hands to the tools of the Pākehā for the well being of your body.
Turn your heart to the treasures of your ancestors as a crown for your head.
Your spirit to God to whom all things belong.

Sir Apirana Ngata (1949)

This thesis documents the development and assessment of a cognitive behavioural therapy (CBT) treatment protocol designed for delivery to adult Māori clients experiencing symptoms of depression. It is the first piece of applied clinical research that has examined the efficacy of an *individual* psychological therapy exclusively with Māori clients. The development of this treatment protocol will initially provide direct benefits to the participants of this study and their whānau. Subsequently the information collected will benefit the many Māori whānau[1] whose lives are disrupted by the debilitating symptoms of depression and inform those whose responsibility it is to provide empirically supported psychological services to Māori.

The famous Māori academic and politician, Sir Apirana Ngata wrote the well known and widely quoted passage that opens this thesis in a young girl's autograph book in 1949 when he visited Potaka School in Opotiki. It has

[1] Extended family.
N.B. The first appearance of Māori terminology and any cultural terms frequently used in this thesis, will be accompanied by a footnote with the English translation as defined by the Ngata Dictionary (2009). Thereafter, a selected glossary of Māori terms is provided in Appendix A.

been inferred that it outlines his vision for a bicultural society in Aotearoa[2]. The whakatauki[3] has been variously interpreted and a consistent theme of these interpretations is that it is a clear expression of the balance that Ngata believed Māori needed to aspire to in order to thrive, adapt and survive in a rapidly changing world. The Rt. Rev Manuhuia Bennett summarised the key components of the whakatauki as follows. Firstly, it alludes to the need for Māori to educate and equip themselves with "nga rakau o te Pākehā" or the "tools of the Pākehā[4]" to ensure their survival. Secondly, it emphasises the importance of becoming familiar with the cultural practices, values and beliefs of our ancestors to ensure the preservation of a Māori identity. Finally, it acknowledges the important role of spirituality within a Māori worldview when it urges Māori to give their wairua[5] or spirit to God (Bennett, 2001).

This study has evolved out of an interest in applying Ngata's sentiments to the domains of clinical psychology and the improvement of Māori mental health. It seeks to examine a set of "Pākehā tools" (in this case CBT) in regards to their level of applicability to the treatment of Māori clients with depression. CBT constitutes the most extensively researched, and in the case of New Zealand the most widely utilised of modern approaches to psychotherapy (Kazantzis & Deane, 1998). Despite this, its utility in treating depression among Māori clients is yet to be empirically validated. Rather its effectiveness has been assumed based on a combination of international and local literature and the anecdotal experience of New Zealand clinicians.

The primary basis for biculturalism[6] in New Zealand is the Treaty of Waitangi[7], a historical document of agreement signed between Māori and The Crown in 1840 outlining the process that would allow Māori the right of continued self-determination under the umbrella of British governance

[2] New Zealand
[3] Proverb, saying
[4] Of European descent.
[5] Spirit.
[6] Refers to the relationship between Māori and Pākehā (also bicultural).
[7] Refer to Appendix B for the Māori and English versions of The Treaty of Waitangi.

(Herbert, 2002). A thorough discussion of The Treaty is beyond the scope of this thesis however the reader is referred to Claudia Orange's book entitled 'The Treaty of Waitangi' for a comprehensive commentary on this important historical document (Orange, 1987).

How the psychological discipline in New Zealand should respond to the Treaty of Waitangi has been a topical issue for many years. The National Standing Committee on Bicultural Issues (NSCBI) a branch of the New Zealand Psychological Society, has been something of a flag-bearer in both the definition and embodiment of the relationship between The Treaty and the psychological discipline in New Zealand (NSCBI, 1995). A number of authors have endeavoured to articulate the link between the Treaty of Waitangi and psychology (Awatere-Huata, 1993; Durie, 1997; Herbert, 1998; Hirini, 1997). The NSCBI along with these authors all emphasise the importance that the discipline of psychology evolve from its western-dominated position.

Critique directed at the teaching of psychology in New Zealand has focussed on the predominant western influence that underpins the teaching of psychology. Abbott and Durie's (1987) study examined the extent to which post-graduate psychology programmes in clinical, educational and community psychology incorporated a "bicultural" component. Relatively few of the courses in New Zealand incorporated 'taha Māori'[8] into their teaching programme. The authors discussed the negative implication that graduates would be ill equipped to work effectively with Māori client populations. Levy (2002) interviewed 17 practicing Māori psychologists (many of whom presumably trained in the psychology programmes examined by Abbott and Durie's study). The informants consistently identified the overt emphasis placed on western models of practice and the relative 'invisibility' of Māori perspectives in psychological training programmes in New Zealand, as the most salient barrier to Māori participation in the discipline of psychology.

[8] A Māori way of doing things

Levy went on to point out the considerable irony of this situation given the high incidence of Māori requiring psychological services.

Significant progress has been made since the 1980's to incorporate Māori perspectives at the academic level. For example, Nathan (1999) replicated Abbott and Durie's research a decade on finding that significant improvements had occurred across all New Zealand clinical psychology training programmes. One of the 'filter down effects' that might be expected as a consequence of this progress, would be improved incorporation of cultural perspectives at the level of clinical service delivery to Māori. The current research aims to make a significant practical contribution to the literary body in this area by assessing the efficacy of incorporating Māori perspectives at the level of clinical service delivery to Māori.

Historically the methodological approach utilised to define what is 'best practice' or empirically supported in the field of Clinical Psychology has been the randomised controlled trial (RCT)—large scale studies which randomly assign people to a treatment of interest or to a comparison condition of some kind (Chambless & Hollon, 1998). RCTs were considered the bastions of scientific objectivity in clinical research. Relatively brief, definable and structured therapies such as CBT and Interpersonal therapy (IPT) thrived under RCT conditions. However there is now an acute awareness of the limitations imposed by RCT methodology. A number of articles have critiqued the wide-ranging inferences that tend to be drawn from their findings (e.g., Westen, Novotny, & Thompson-Brenner, 2004) and there is now widespread acceptance that a range of research methodologies should inform best practice (Westen, Novotny, & Thompson-Brenner, 2005).

One of the critiques of RCTs centres on the homogeneous nature of populations from which participant groups are traditionally drawn. The overwhelming majority of these large-scale studies have been conducted in the United States and have drawn their participants from populations with limited ethnic diversity (Hays & Iwamasa, 2006; Iwamasa, Sorocco, &

Koonce, 2002). The findings of such studies have less relevance to the New Zealand population, let alone the Māori population. A question that therefore emerges when applying RCT findings is exactly how far geographical, ethnic, and cultural parameters can be extended when making best practice inferences with regards to psychotherapeutic intervention.

The development of the research objectives for this study occur alongside an international trend toward the development of psychological practice appropriate to the cultural context of those to whom it is applied (Hays, 2001). Within New Zealand, the profession is being urged to develop a psychology that is tailored to the unique cultural composition of the New Zealand population (Blampied, 1999; Evans, 2002). Furthermore, Māori are being encouraged to "claim space" within the landscape of psychology in New Zealand (Levy & Waitoki, 2007) and there is now a more compelling empirical basis for recommending that mental health services adapt their practice to better cater for Māori experiencing mental illness (Baxter, Kingi, Tapsell, & Durie, 2006; Tapsell & Mellsop, 2007). The current clinical research makes a small but unique step toward these ambitions.

The first section of this thesis will describe three converging themes of primary relevance to the current study each of which is depicted in Figure 1. Chapter 2 will introduce the topic of depression, covering issues regarding the diagnosis and course, social impact of depression, prevalence, treatment options, and the interaction between ethnicity and depression. This will lead discussion into a primary focus on depression in New Zealand and in particular the prevalence and impact of depression on the Māori population and the related issue of the provision of mental health care to Māori. It will also cover the small body of literature that has contrasted clinical perspectives with traditional Māori perspectives of depression. Chapter 3 will further refine the focus to CBT, the therapeutic modality being implemented and evaluated by this thesis. It will briefly examine the historical foundations of CBT and touch upon the vast landscape of its empirical journey to 'gold

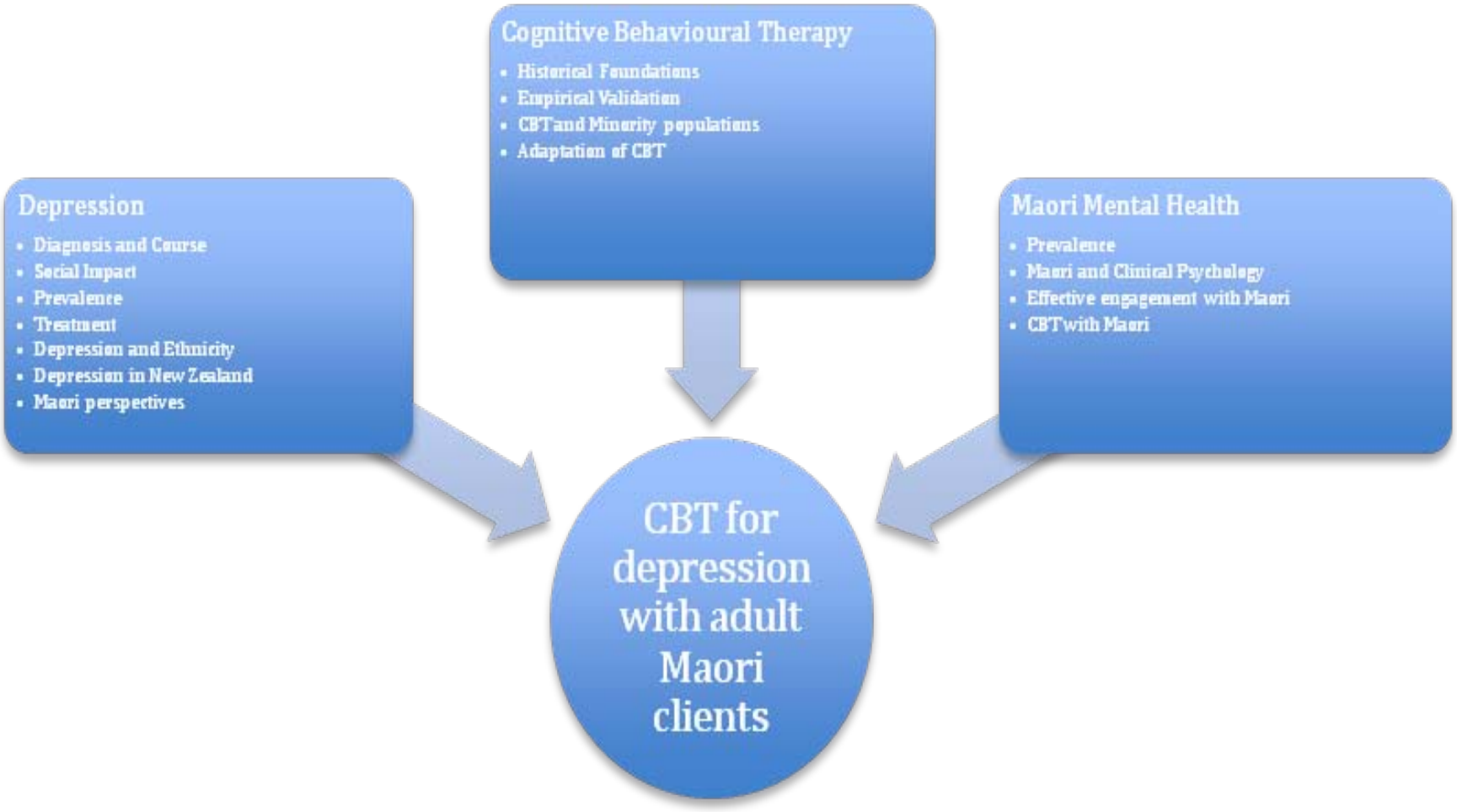

Figure 1. Diagram depicting three converging themes of the current research project

standard' status. The key focus of this chapter will be on the burgeoning literature supporting the adaptation of CBT when applying it among certain populations as well as discussion around the particular aspects of 'pure' CBT that require modification when applied to certain population groups.

Finally Chapter 4 will complete this opening section by drawing the relevant themes together and presenting the aims, key research questions, and associated rationale for this piece of doctoral research. The overarching goal is to define and evaluate a process whereby Māori people with depression are able to glean the benefits of a "Pākehā" innovation (CBT), in a manner that appreciates and values the important components of their Māori identity. There can be no argument that this goal is entirely consistent with the sentiments inherent in Ngata's whakatauki describing a state of affairs that surely remains as desirable today as it was in 1949 when it was first written in the young girls' autograph book.

Chapter 2 – Depression: The Māori Experience

2.1. Outline and Aims

Instances of depression have been documented since ancient times. Documents such as the Old and New Testaments of the Christian Bible as well as Homer's famous literary work *Iliad* have described individuals experiencing depressive symptoms. Early medical perspectives of depression focused on the cyclical nature seen in mood disorders and contrasted the melancholic mood associated with depression with the more elevated symptoms associated with mania (Kaplan, Sadock, & Grebb, 1998). Since this time however the less severe fluctuations associated with depression and more specifically the diagnosis of major depressive disorder has emerged as one of the most commonly diagnosed of those defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases and Related Health Problems (ICD) (Goldman, Nielsen, & Champion, 1999).

This chapter will briefly review the diagnosis of depression and its associated symptomatology. It will look at the individual and social costs of depression as well as theories of aetiology. The prevalence of depression worldwide, among minority populations, and in New Zealand will also be reviewed. This chapter will then primarily focus on Māori prevalence data, Māori perspectives of depression and mental illness more broadly and the burgeoning literature regarding effective treatment of Māori clients with mental illness. Finally the summary section will review the presented information in relation to its relevance to the current research.

2.2. Diagnostic Issues

The commonly used term 'depression' typically refers to the Depressive Disorders as defined by the Diagnostic and Statistical Manual–4th Edition–Text Revision (DSM-IV TR; APA, 2000). Depressive Disorders are a subset of the Mood Disorder category and include the diagnoses of Major

Depressive Disorder and Dysthymic Disorder. Within the Mood Disorder category DSM-IV makes a clear distinction between Depressive Disorders, Bipolar Disorders, Mood Disorders due to a General Medical Condition and Substance-Induced Mood Disorder. For the purposes of this proposed research and study the term 'depression' will be used in reference to the broader DSM category of Depressive Disorders. The clinical diagnosis of depression is contingent on the presence of a *major depressive episode*[9].

The diagnostic criteria for a 'Major Depressive Episode' as defined by DSM-IV-TR includes symptoms such as depressed mood, loss of interest, feelings of worthlessness, concentration difficulties, suicidal ideation as well as physical symptoms such as fatigue, agitation or retardation, insomnia and weight loss. At least five of these symptoms must be present over the course of at least two weeks in order for the criteria for a Major Depressive Disorder to be met (APA, 2000). A Dysthymic Disorder on the other hand is characterised by a less severe but more chronic state of depression, that is present for more days than not for at least two years.

The diagnostic manual of the World Health Organization (WHO) the ICD-10 (WHO, 1993) is officially used for reporting health statistics in New Zealand, although it is not generally used here for frontline clinical diagnoses. The ICD-10 is primarily used in European countries and does not use the term 'major depressive disorder'—however a similar set of symptoms fulfil the diagnosis of a depressive episode that is classified as mild, moderate or severe.

2.3. Individual and Social Impact

The debilitating individual impact of depression and the marked personal suffering endured by those who fulfil the diagnostic criteria for depression is reflected in the symptomatology outlined above. Similarly depression impacts at a range of social levels both proximal and distal to the depressed person.

[9] Refer to Appendix C for the DSM-IV-TR criteria for a major depressive episode.

Murray and Lopez (1997) described depression as the number one cause of disability worldwide. Aside from the personal suffering endured by people with a diagnosis of depression there is also an increased likelihood of family distress and conflict, impaired cognitive and emotional development among the children of those who suffer from depression, as well as the associated risk of suicide that results in higher mortality rates for those with depression (Goldman, Nielson, & Champion, 1999). Individuals suffering from depression have been found to experience poorer levels of physical and occupational functioning, reduced social activation, more work days lost, diminished work performance, and higher health service use (Lecrubier, 2001). A major WHO study has predicted that by the year 2020 depression will be second only to heart disease in terms of the collective level of disability experienced by its sufferers (Ustun, Ayuso-Mateos, Chatterji, Mathers, & Murray, 2004). Psychiatric research findings have suggested that recurrent depressive episodes can have a negative and cumulative neurotoxic effect further emphasising the importance of effective treatment and the prevention of relapse (Shatzberg, Garlow, & Nemeroff, 2002; Sher & Mann, 2003).

Depression comes at a considerable cost to society, impacting at multiple levels including the medical resources and professional expertise expended in treating depression, loss of earnings and reduced production due to work absenteeism, early retirement, and premature mortality (Berto, D'Ilario, Ruffo, Di Virgilio, & Rizzo, 2000). During the 1990's the yearly cost of depression to the United States alone was estimated at $43 billion (Greenberg, Stiglin, Finkelstein, & Berndt, 1993) and this figure was found to have increased 7% by the next decade (Greenberg et al., 2003). Australian studies also investigating the financial cost of depression recommended that allocating resources to improve depression treatment efficiency would result in a marked financial and social net benefit (Hawthorne, Cheok, Goldney, & Fisher, 2003). Other Australian researchers have emphasised the importance of effective treatment, estimating that even small gains in the

functional capacity of depressed individuals could potentially benefit the country by one billion dollars a year (Goldney, Fisher, Wilson, & Cheok, 2000).

2.4. Aetiology[10]

As with the majority of psychiatric illness, there is no absolute consensus on the cause of depression. A wide range of factors have however been found to be associated with an increased risk of depression. This includes both environmental and biological factors, although neither construct on its own has been adequately shown to explain the aetiological variation seen in all cases of depression. The vast majority of studies have found both genetic and environmental factors to be significant predictors of depression (e.g., Silberg et al., 1999; Sullivan, Neale, & Kendler, 2000)

The notion that adverse life events can lead to psychological disorders is relatively well accepted and the relationship between stressful life events and the onset of major depression has been consistently found in a major review of the literature (Kaplan et al, 1998). The unquestionably complex nature of aetiology has given rise to a large body of literature describing vulnerability-stress models of psychological disorders (Ingram & Luxton, 2005). Also known as diathesis-stress interactions, these models emphasise the complex aetiological process that leads to mental disorder and describes the interaction between vulnerability factors and environmental stressors that predispose people to mental illness (Mazure, 1998). Hammen (2005) applauded the development of increasingly complex diathesis-stress models of depression most of which include the effects of key biological, psychological, developmental, and socio-demographic variables on depression. Such models have also acknowledged the moderating interactions between factors emphasising the dynamic (rather than static) process that leads to depression.

[10] A full discussion of the aetiology of depression in beyond the scope of this thesis. The interested reader is referred to Sjöholm, Lavebratt, and Forsell (2008) for a more comprehensive review of the aetiological factors associated with depression.

2.5. Prevalence

As noted above depressive disorders are among the most commonly diagnosed psychiatric disorders with lifetime prevalence estimates ranging from 15 percent to as high as 40 percent (Kaplan et al, 1998). Depression is more commonly experienced by females, unmarried people, and those of lower socioeconomic status (Inaba et al., 2005). The diagnosis of depression is increasing at rates that have been described as “epidemic” and is 10 times more prevalent now than it was in 1960 (Paradise & Kirby, 2005). Increasing social awareness of depression and its symptoms and public campaigns that have aimed to reduce the negative stigma associated with seeking help are likely to have impacted on this trend (Barney, Griffiths, Jorm, & Christensen, 2006). The large number of people affected by depression underlines the importance of providing effective empirically supported treatment.

2.5.1. Prevalence and Ethnicity

Understandably it is widely assumed that ethnic minority groups experience disproportionately high rates of mental illness, an assumption based in part due to the over representation of minority groups in negative socioeconomic statistics (Crimmins, Hayward, & Seeman, 2004). For the most part this assumption has been supported by epidemiological data, however the research findings related to the interaction between depression and ethnicity have been slightly inconsistent suggesting a more complex relationship between ethnicity and mental illness.

Most studies have found that ethnic minority groups fare poorly with regards to rates of depression. For example, research conducted in the United States of America (USA) found that African-Americans and Hispanic people exhibited higher rates of depression than White Americans (Dunlop, Song, Lyons, Manheim, & Chang, 2003). In a large-scale epidemiological study undertaken in New Zealand, Māori experienced significantly higher rates of mood disorder in comparison to a composite ethnic group described as

'Other'[11]. These differences remained significant after socioeconomic variables were controlled for (Oakley-Browne, Wells, & Scott, 2006). Whilst there is not reliable epidemiological data currently available regarding the prevalence of depression amongst the Australian Aboriginal and Torres Strait Island population, anecdotal reports suggest a high incidence of mental illness such as depression and substance abuse and dependence (Davidson, 1992; Vicary & Westerman, 2004).

Conversely other studies have found no difference (e.g., Breslau et al., 2006) or in some cases that minority groups have *lower* rates of depression than the general population rate. For example one study found higher rates of major depressive disorder among White Americans as compared to African Americans and Mexican Americans, although the same study found the opposite trend with regards to dysthymic disorder. However the authors suggested this may have been a cultural response bias whereby non-White participants were diagnosed with dysthymic disorder rather than depression (Riolo, Nguyen, Greden, & King, 2005). In New Zealand the Pacific Island population were found to have significantly lower prevalence rates of depression as compared to both Māori and the composite 'other' ethnic group (Oakley-Browne et al., 2006).

There are several possible explanations for the inconsistencies seen in these results. One explanation could be a tendency towards under diagnosis of mental illness among ethnic minority groups, possibly a manifestation of the cultural framework used in the classification of mental illness (e.g., DSM-IV-TR or ICD-10). Supporting this are findings that have indicated that clinicians tend to under diagnose mood disorders and over diagnose schizophrenia in clients whose racial or cultural background differs from their own (Wells, Bushnell, Hornblow, Joyce, & Oakley-Browne, 1989). Other authors have suggested that protective factors unique to different ethnic minority groups help to prevent disorders such as depression. For example, Breslau et al (2006) suggested that factors such as ethnic identification and

[11] Inclusive of all ethnic groups in New Zealand excluding Māori and Pacific Island

religious participation may play a role in reducing the risk of five “internalising disorders” - major depression, dysthymia, generalised anxiety disorder, social phobia, and panic disorder - among Hispanic groups.

The inference that cultural identity can have a protective influence with regards to depression in particular, has a clear bearing on this research. It is possible that the development of a treatment protocol that explicitly recognises and acknowledges the clients cultural identity may result in a reduced risk of relapse. Further implications regarding the psychosocial value of cultural identity are discussed in section 2.8.5.

2.6. Treatment of Depression

A number of treatment options are available and routinely implemented for depression in its acute phase. These include a range of anti-depressant drugs and several empirically supported structured and time-limited psychological treatments. The majority of studies indicate that the most effective treatment for depression should involve a combination of psychotherapy and pharmacotherapy, although either alone has also been found to be effective (Kaplan et al, 1998).

Of the psychological approaches available, cognitive-behavioural and interpersonal therapies have been identified as the ‘gold standard’ in the treatment of depression since the mid-1980s, with an increasing volume of high quality empirical evidence supporting their use (Williams, 1992). Chapter 3 will go into greater detail regarding the development of CBT and its application in various contexts.

2.7. Depression in New Zealand

Up until recently the psychiatric prevalence rates of the general New Zealand population had been relatively under-researched and only approximate inferences had been able to be drawn due to limitations of previous studies. In 1986 the Christchurch Psychiatric Epidemiology Study (Wells et al., 1989) sampled 1498 adults aged 18 to 64 years who were resident in the Christchurch urban region. The lifetime rates of major

depressive episode were higher in Christchurch compared to several other international cities that had used similar methodology (e.g., Los Angeles, Edmonton, Puerto Rico). While acknowledging limitations in the extent to which their results can be generalised, the authors inferred that it, “may be that there is a genuinely higher lifetime rate of depression in New Zealand” than in a number of cities in the USA and Canada (Romans-Clarkson, Walton, Herbison, & Mullen, 1990). Other estimates suggested that lifetime prevalence rates of depression in New Zealand ranged from 10 to 20 per cent (Sullivan & Builik, 1997). Despite limitations these studies generally indicated a high rate of depression in New Zealand relative to other countries (Oakley-Browne, Durie, & Wells, 2000).

Little empirical data had been available regarding the prevalence of depression or any other mental illness amongst the Māori community (Durie, 2001). An estimate of Māori trends with regards to depressive disorders was gleaned from hospital admission data. Amongst the New Zealand population the rate of hospitalisation for ‘neuroses and other depressive disorders’ during 1994 was 36.7 per 100 000 Māori females and 15.8 per 100,000 Māori males; compared with rates of 15.8 and 20.7 per 100 000 respectively among non- Māori (Sachdev, 1989). However these figures were far from ideal in estimating the prevalence of depression as it is only a small proportion of people experiencing depression who require hospitalisation, with the majority remaining and receiving treatment in the community setting. Despite their limitations the figures do infer that depression is a commonly diagnosed disorder for Māori, and suggest that Māori rates of depression in New Zealand, at least amongst those who require hospitalisation, are higher than those experienced in the general population.

More recently, two major studies have greatly improved our understanding of the prevalence of depression in the New Zealand population as well as the relative prevalence of depression among Māori. The first of these has been the research conducted by the Mental Health and General Practice

Investigation (MaGPie) research group from the University of Otago who examined the prevalence and types of common mental disorders among patients attending New Zealand general practices. They found that mental health problems were common among general practice patients with about half of patients identified as having some type of psychological problems in the previous year (The MaGPIe Research Group, 2003).

The second significant study to elucidate our understanding of the prevalence of depression in the New Zealand population is Te Rau Hinengaro: The New Zealand Mental Health Survey[12], which released its initial findings in September 2006 (Oakley-Browne et al., 2006). This large scale epidemiological study based on approximately 13,000 interviews was commissioned by the Ministry of Health to examine the prevalence of mental illness in the general New Zealand population. One of the key objectives of this study was to describe the one-month, 12-month and lifetime prevalence rates of "major mental disorders" among people over the age of 16 and living in private households. Major mental disorders were defined as the anxiety disorders, mood disorders, substance use disorders and eating disorders.

2.8. Depression and Māori

2.8.1. Māori Perspectives on Mental Health

Māori ideologies and the inherently western practice of clinical psychology diverge at a number of levels. Numerous authors have alluded to the philosophical tensions that exist between Māori ways of understanding and viewing the world and those of the psychological discipline (e.g., Abbott & Durie, 1987; Lawson-Te Aho, 1994; Nathan, 1999; Paewai, 1997). These authors have stressed the importance that the psychological profession in New Zealand evolve to more adequately support the aspirations of the Māori population. Durie (2004) argued that when the conceptualisations about health held by a specific population are disregarded it can lead researchers and clinicians toward misleading diagnostic and treatment decisions. As a population Māori are as diverse as any other and there will undoubtedly be

[12] Referred to as 'Te Rau Hinengaro' from here forth.

individual variation in any construct considered to be relevant to the psychological make-up of Māori. Nonetheless in order for western approaches to psychology to be adapted and refined to improve their relevance to Māori clientele, it is important to consider some of the more common values and beliefs that underpin a Māori worldview. For some time there has been strong support for the development of a Māori specific psychology as a mechanism for (amongst other things) the promotion and betterment of Māori mental health (Levy, 2007; Levy & Waitoki, 2007).

Fortunately considerable progress has been made in integrating Māori ideologies into psychological practice and we now have frameworks for understanding (e.g., Durie, 1984; Pitama et al., 2007) and measuring (Kingi & Durie, 2000) health outcomes from a Māori perspective. In particular Te Whare Tapa Wha[13] is an extensively referenced Māori model of health, first proposed by Durie (1984). Using the metaphor of a whare it highlights the four dimensions integral to Māori concepts of well being. The four domains are te taha tinana (physical well being), te taha hinengaro (mental/emotional well being), te taha whānau (familial well being), and te taha wairua (spiritual well being).

Nikora, Levy, Masters and Waitoki (2004) described indigenous psychology as it applies to Māori in Aotearoa/New Zealand. They posited that an indigenous psychology was best defined by the term '*tikanga*'[14] or the behaviours, values, and ways of being and doing that have always been inherent in Māori society. Durie allocates a chapter in his book Mauri Ora to the description of a 'Māori Psychology' which utilises the metaphor of encounters on the marae[15] to provide insight into some of the key *tikanga* that might be considered when making inferences as to the constitution of a Māori worldview (Durie, 2001). In a subsequent publication Durie (2007)

[13] Refers to the model proposed by Durie (1984) however it literally translates to 'the four walls of the house'.
[14] Māori custom, protocol, or values.
[15] gathering and meeting place, the spiritual and symbolic centre of Tribal affairs.

refers to several domains including those of space, time, reciprocity, and metaphor as being particularly relevant to the clinical practice of psychology with Māori clients.

One example of 'symptomatology' specific to the Māori culture is proposed by Metge (1986) who describes Māori perspectives of the construct 'whakama'[16] and the range of manifestations of a condition that has parallels to symptoms seen in depression. Although there is no definitive English translation for the construct, it has been variously described as shame, self-abasement, inferiority, inadequacy, self-doubt, and excessive modesty (Sachdev, 1990).

The degree of acceptance and utilisation of these frameworks and outcome measures at the consumer interface is difficult to estimate. However in the case of Durie's (1984) model, Te Whare Tapa Wha has been extensively referenced in both national and international publications (e.g., Gawith & Abrams, 2006; Glover, 2005; McPherson, Harwood, & McNaughton, 2003; Pitama et al., 2007; Smylie, Anderson, Ratima, Crengle, & Anderson, 2006) indicating acceptance at an academic level at the very least. The current research purports to bridge the gap between theory and practice through the development of specific adaptations for use in the application of CBT with Māori.

2.8.2 Prevalence

The MaGPIe study (2005) found that rates of mental illness among Māori attending their general practitioners were higher than among non-Māori. Māori women had twice the likelihood of presenting with a diagnosable mental disorder as compared to non-Māori women. The study went on to conclude that despite social differences between Māori and non-Māori, the higher rates of mental disorder experienced by Māori could not be fully accounted for by socioeconomic variation (The MaGPIe Research Group,

[16]Term used to describe a range of feelings that include shyness, embarrassment and shame. It includes varying degrees of withdrawal and unresponsiveness

2005). The same study found significant disparities between Māori and non-Māori in the 12-month prevalence of depression with rates for non-Māori of 18.4% compared with rates for Māori of 56.4%. The authors go on to conclude that their findings provide strong support for the development of services, interventions and initiatives that target the Māori population.

Although the Te Rau Hinengaro survey was intended to be a nationally representative sample, over-sampling was employed to improve the accuracy of estimates for the Māori population—the number of Māori included in the sample was doubled compared with what would have been expected in the absence of over-sampling. In total the sample included 2,595 participants who reported Māori ethnicity (Oakley-Browne et al., 2006). Baxter, Kingi, Tapsell and Durie (2006) reported on the specific findings related to the Māori participants. Key findings included that lifetime prevalence of any disorder was 50.7% and 24.3% for any mood disorder. The 12-month prevalence rate for mood disorders was 11.4%. The most common mood disorder experienced by Māori for both lifetime and 12-month prevalence was depression. In summary, epidemiological research indicates that depression is common among the Māori population and occurs at significantly higher rates than in other ethnic groups in New Zealand.

2.8.3. Service Utilisation

International trends with regards to health care utilisation indicate that ethnic minority groups are less likely to access mental health services and when they do are less likely to express satisfaction with the experience. The rates of depressed individuals receiving treatment is significantly lower for black Americans and Hispanics as compared to White Americans (Sclar, Robison, & Skaer, 2008). Even when factors such as client income, level of access, and insurance status are controlled for, racial and ethnic minority groups are not only less likely to utilise mental health services but also tend to receive a lower “quality” of mental health care (Smedley, Stith, & Nelson, 2003).

Te Rau Hinengaro found significantly lower rates of service utilisation among Māori with mental illness in comparison with other ethnic groups[17] (Oakley-Browne et al., 2006). A major challenge for mental health services in New Zealand that has emerged from the results of Te Rau Hinengaro is the importance of improving health care utilisation and access by Māori. Making mental health services more responsive to Māori and subsequently a more attractive treatment option is considered a crucial aspect of achieving this (e.g., Evans, 2002; Huriwai, Robertson, Armstrong, Kingi, & Huata, 2001; Kingi, 2005). The intent of this study to culturally tailor treatment for Māori people with mental illness, represents an innovation that may assist in closing these gaps in service utilisation and improving the clinical experience of Māori consumers of mental health services.

2.8.4. Perspectives on Treatment

Perhaps the most infamous colonial act targeting the therapeutic value of Māori ideologies was the Tohunga Suppression Act passed in 1907[18]. This piece of legislature essentially outlawed the traditional practices of Māori Tohunga[19] dismissing their methods as superstitious and misleading (Stephens, 2001). The passing of this Act, indicates the considerable resistance of Pākehā to the integration of Māori beliefs and values into New Zealand's colonial society.

Societal attitudes have evolved considerably since these times and Māori customs, values and beliefs are increasingly acknowledged and integrated across most sectors of society (Walker, 1992). It is still considered essential however, that Māori continue to maintain and promote their culture to ensure that their values and beliefs are integrated into the New Zealand mainstream rather than resting at the margins as has historically been the case (Clydesdale, 2007).

[17] With the exception of Pacific Island people.
[18] See Appendix D for a copy of the Tohunga Suppression Act 1907.
[19] Expert. This expertise can apply to any skill or art.

There is a body of literature available outlining factors that are considered to contribute to improved outcomes for Māori in the area of mental health, although this tends not to be supported by empirical data. A survey of the views of 247 New Zealand psychiatrists recommended that in order to work effectively with Māori experiencing mental illness, clinicians needed to have a greater understanding of Māori perspectives of mental illness and consult with Māori staff where possible. The study also emphasised the importance of increasing the numbers of Māori professionals working in mental health (Johnstone & Read, 2000).

A report from New Zealand's Mental Health Commission (1998) emphasised that Māori needed to be given choice as to whether they use mainstream services, kaupapa Māori[20] services or both. In the same document the Commission goes on to outline seven broad components which they consider to be integral to meeting the mental health needs of Māori tangata whaiora[21]. Some of these suggestions include a thorough assessment of cultural status and needs to ensure that Māori healing practices and philosophies can be offered to supplement treatment; client and whānau participation in assessment and treatment consistent with the concept of whānaungatanga[22]; allowing clients the option of conversing in te reo Māori[23]; integration of Māori protocol; availability of Māori clinicians; and the incorporation of Te Whare Tapa Wha as a measure of performance.

New Zealand research found that when cultural components were incorporated into the treatment of adolescent sexual offenders improved outcomes were obtained (Geary, Lambie, & Seymour, 2006). One such example is a particularly innovative narrative approach to therapy involving the use of purakau[24] when working with Māori youth (Cherrington, 2002;

[20] Māori agenda.
[21] Used in the health system to describe clients of Māori descent. The literal translation for the term is 'person seeking wellness'.
[22] Refers to family relationships, in the broader sense and is usually associated with making Whānau, hapu and tribal connections.
[23] Māori language
[24] Māori stories of mythology.

Cherrington & Rangihuna, 2000). The authors describe one of the active ingredients of the approach as being the identification of culturally relevant role models and then replication of the means by which they coped with adversity.

Several authors have considered the relevance of CBT to Māori clients and pointed out potential limitations of the approach (e.g., Hirini, 1997). A full discussion of this literature has been reserved for Chapter 3.

2.8.5. The Value of Identity

Durie (1999) posits that a secure cultural identity is an important requirement to ensure good mental health. Access to relevant cultural resources such as Māori language, family networks and customary land contribute to the reinforcement and maintenance of positive mental health. Spirituality or 'te taha wairua' has long been acknowledged as an essential component in the Māori psyche and is one of the four recognised foundations of health as described by Durie in his widely referenced model Te Whare Tapa Wha (2004).

Researchers have consistently identified the psycho-social benefits for Māori of a secure connection to their cultural identity and ready access to resources of cultural significance (Bennett & Flett, 2001; Hirini & Collings, 2005). Māori psychiatrist Dr Rees Tapsell, commented that integral aspects of his clinical practice with Māori clients included instilling a shared sense of cultural pride and that effective clinician-client relationships could be guided by the principle of "whānaungatanga" rather than the more traditional hierarchical view of patient-client interaction (cited in Diamond, 2005).

Previous literature would suggest that the construct of identity has considerable relevance to Māori and indeed to the topic of this doctoral study. Firstly it has been documented elsewhere that a secure/strong cultural identity has a range of psychosocial benefits, which might therefore suggest that Māori people with depression may benefit a strong cultural identity. There is also literature, to be presented in detail in the next chapter,

that recommends the inclusion of Māori values such as whānaungatanga when providing clinical treatment with Māori clients.

2.9. Summary

In summary this chapter has introduced the clinical diagnosis of depression providing information on the symptoms, diagnosis, general impact and prevalence of depression. Pharmacological and psychological interventions are the empirically supported modalities of treatment for people with depression with CBT and IPT the favoured psychological orientations.

Data reporting depression prevalence rates, mostly indicates that minority ethnic groups experience higher rates of depression than majority ethnic groups. There are notable exceptions to this with some authors suggesting that cultural identity may play a protective role relative to depression and other mental illness in certain cultural contexts. In line with this, local research has also highlighted the psychosocial benefits of a secure Māori identity. Te Rau Hinengaro has given greater clarity to our understanding of prevalence rates of mental illness in New Zealand. Findings suggest that depression is a common disorder in New Zealand and furthermore Māori experience rates of depression significantly higher than other ethnic groups.

Colonial acts such as the passing of the Tohunga Suppression Act, illustrates historical attitudes toward the role of Māori culture in health settings. Over recent years however there has been considerable movement toward introducing Māori views on health, and Māori protocol and values into the health sector. Several authors also provide guidance on the delivery of mental health care to Māori consumers however, in most cases these publications have stopped short of empirically evaluating any suggested adaptations to treatment delivery.

This study will make a valuable literary contribution as it focuses on the treatment of depression, a mental disorder that impacts on Māori at rates significantly higher than other population groups in New Zealand. Secondly the research is historically relevant as it coincides with a strong current

societal emphasis on the inclusion of Māori values and ideas in New Zealand's health sector. Finally, it goes a step further than the majority of other literary contributions in this area, by empirically evaluating the therapeutic benefit of delivering a culturally adapted psychological treatment package.

Chapter 3 - Cognitive Behaviour Therapy in Aotearoa

3.1. Outline and Aims

Cognitive Behavioural Therapy (CBT) is a well established and widely used time-limited treatment for depression that evolved from Albert Ellis's Rational Emotive Behaviour Therapy (1962) and Aaron Beck's cognitive therapy (Beck, 1964). Over the years various forms of CBT have been developed by major theorists including Arnold Lazarus (1976) and Donald Meichenbaum (1977). This work culminated in the publication of a key manual three decades ago that integrated cognitive therapy with behavioural techniques in the treatment of depression (Beck, Rush, Shaw, & Emery, 1979).

This chapter briefly introduces the theoretical underpinnings of CBT as it applies to depression and the empirical basis for its predominant position as the therapeutic modality of choice across a wide range of mental disorders. This will be followed by a discussion on the ideological tensions that exist in applying CBT outside of the cultural context in which it was developed with specific reference to other ethnic minority groups. Finally, the application of CBT in a Māori cultural context will be discussed and the issues raised by researchers and academic commentators examined.

3.2. Cognitive Behavioural Theory

The cognitive model of depression posits that depressed individuals have a stable set of core beliefs or schema that develop as a result of their early life experiences. These schema then predispose these individuals to negative interpretations and systematic cognitive errors (also known as automatic thoughts) in response to certain situations. These cognitive errors result in the individual engaging in depressive behaviour. The authors identify three major cognitive themes that prevail in a depressed client: a negative view of self, a negative view of their environment, and a negative view of the future. This is known as the cognitive triad (Beck et al., 1979).

Cognitive behavioural therapy employs a series of progressive interventions that target observable behaviour, dysfunctional automatic thoughts, and at the core level underlying cognitive schema. Typically therapy will initially focus on implementing behavioural interventions as a foundation to the introduction of a series of cognitive techniques aimed at building the capacity of depressed clients to combat negative thinking.

3.3. Empirical Validation of CBT

CBT has been extensively researched and a vast number of well-controlled studies have supported the efficacy of cognitive behavioural therapy in the treatment of depression over a number of years (e.g., Blackburn, Bishop, Glen, Whalley, & Christie, 1981; Dubicka, 2008; Hersen, Bellack, Himmelhoch, & Thase, 1984; Keller et al., 2000; Soroudi et al., 2008). CBT has also been shown to be an effective intervention for depression across the life span with studies indicating successful outcomes with children and adolescents (Curry, 2001), and the elderly (Koder, Brodaty, & Anstey, 1996).

Whilst the original CBT manual was developed to treat depression, the core principles of CBT have been adapted and successfully applied to a range of mental health issues including anxiety disorders (e.g., Dugas & Ladouceur, 2000; Dugas et al., 2003; Manassis, Avery, Butalia, & Mendlowitz, 2004; Pina, Silverman, Fuentes, Kurtines, & Weems, 2003; Wattar et al., 2005), personality disorders (e.g., Koerner & Linehan, 2002; Pretzer & Beck, 2004; Sunseri, 2004), bipolar disorder (e.g., Jones, 2004; Schmitz et al., 2002), and substance abuse (e.g., Feeney, Connor, Young, Tucker, & McPherson, 2004; Linehan et al., 1999; Waldron & Kaminer, 2004; Zlotnick, Najavits, Rohsenow, & Johnson, 2003). For many of these disorders CBT is considered the psychological treatment of choice due to the volume of empirical evidence supporting its efficacy.

3.4. CBT and Minority Groups

3.4.1. Evidence for Adaptation

In the original CBT manual (Beck et al., 1979) practitioners were advised that with the exception of research purposes CBT “should be confined to the

kinds of patients who have been shown by research studies to be responsive to this approach". Over subsequent years, a number of major studies have investigated and validated CBT as a highly effective treatment for depression in a range of conditions. However despite the advice documented in the Beck et al manual, the majority of these studies have either not collected data related to ethnic identity, or lacked the statistical power to examine the response of ethnic minority groups to CBT due to the lack of minority representation in controlled trials (Miranda et al., 2005). Concerns were raised by the Surgeon General of the United States that despite the existence of a range of treatments for mental disorder, minority groups were largely omitted from efficacy studies (United States Department of Health and Human Services, 2001). Sue and Zane (2006) considered the extent to which evidence-based practices have been successful in reducing ethnic disparities in the prevalence of mental illness and in improving treatment effectiveness among ethnic minority groups. Their position was that psychological treatment *should* be guided by research evidence however the gap between research and practice is far more pronounced when it comes to our knowledge base of evidenced based practice and empirically supported therapies for racial and ethnic minority groups. Ultimately they concluded that further research needed to be conducted on treatment provision to ethnic minority groups.

Drug trials assessing the efficacy of medical interventions tend to be regarded as internationally applicable and relevant across countries and cultures. In contrast, the findings of studies examining psychological interventions are far less generalisable as they involve a complex and dynamic interpersonal process (Cardemil, Kim, Pinedo, & Miller, 2005). Amongst other factors, psychotherapy is contingent on a range of contextual factors such as culture and environment, and tends to be relatively value-laden.

The notion that CBT should be adapted in order to adequately meet the needs of different ethnic and cultural groups emerges from the assumption

that conventional CBT has limited applicability to certain demographic population groups. Based on an extensive review of the literature, Miranda et al (2005) strongly encouraged clinicians to provide evidence-based care to ethnic minority populations, emphasising the importance of “tailoring” this care to make it sensitive and more acceptable to the culture of the individual receiving treatment (p. 134).

A number of researchers have sought to answer the question of whether CBT is a useful intervention among minority populations. One study compared an eight-week course of CBT via a series of culturally adapted videos with a control group (8-week waitlist) consisting of a group of elderly Chinese Americans recruited from the community (a church group and an apartment building housing mostly Asian people) all of whom reported minor depressive symptoms (Dai, Zhang, & Yamamoto, 1999). Those in the treatment group reported significant improvement in depressive and somatic symptoms in comparison with those who remained on the waitlist. The videotapes were adapted specifically for a Chinese-American audience and included the translation of session tapes into Mandarin.

Providing further weight for the argument for cultural adaptation of CBT is the research of Miranda et al (2003) who examined the efficacy of CBT in the treatment of depression with a large sample of “predominantly” ethnic minority women. The researchers recruited three distinct cultural groups; black women born in the USA (n=532), Latina women born in Latin America (n=408), and white women born in the USA (n=71). Adapting a CBT manual designed for low-income Spanish speaking clients they found CBT to be significantly more effective than no treatment in decreasing depressive symptoms among this population and comparable to anti-depressants. In a follow-up study they found that CBT was superior to community referral in lowering depressive symptoms at one-year follow-up (Miranda et al., 2006). Another study made specific adaptations to both CBT and Interpersonal Psychotherapy (IPT) treatments for depression in Puerto Rican adolescents. The results showed that the adapted versions of both CBT and IPT were

efficacious treatments for depression (Rossello & Bernal, 1999). The nature of cultural adaptations implemented by these and other studies will be discussed further in section 3.5.

In considering the value of adapting CBT it is useful to consider the research of Organista, Munoz and Gonzalez (1994). Their study examined the cognitive behavioural treatment of depression among 175 low-income outpatients; 65% of this group were from ethnic minority groups (primarily Latin-American) and 44% were Spanish-speaking. The researchers did report reductions in depressive symptoms as a result of CBT, however these reductions were not as large as had been expected. The authors found that the reductions in depression in this sample (i.e., treatment effect), were less than the reductions reported by the CBT outcome literature related to depression (Nietzel, Russell, Hemmings, & Gretter, 1987). They also experienced considerably higher drop-out rates (58%) than those suggested by the CBT treatment outcome literature, which has reported drop-out rates as low as 5% (Rush, Beck, Kovacs, & Hollon, 1977). Of particular significance, the treatment protocol used represented a standard approach to cognitive behavioural therapy without cultural adaptations. This led the authors to question the extent to which outcome data should be relied upon to guide treatment choice with minority culture populations. The findings of the Organista et al study (1994) raises important issues in relation to the broader goals of the current research as it challenges the notion that empirical validation in one cultural context is equivalent to the universal validation of a therapeutic modality.

There has been previous research that seems to contradict the rationale for adaptation. One such study examined the relative efficacy of exposure-based CBT in the treatment of phobic and anxiety disorders for Hispanic/Latino youths compared to European-American youths (Pina et al., 2003). The authors found similar clinically significant improvements and maintenance in both groups. Arguably however, the clinical procedure utilised by the researchers involved cultural adaptations that included the

use of Spanish-speaking therapists, and orienting therapists to cultural differences in models of coping.

3.4.2. Methodological Issues

Few studies have directly compared standard and adapted versions of CBT however there are notable exceptions to this. A small study was conducted to examine the effect of making cultural adaptations to a group CBT approach for depression among African-American women. A comparison was made with a demographically-matched control group of African American women who received non-adapted CBT in a similar format (Kohn, Oden, Munoz, Robinson, & Leavitt, 2002). Adaptations included the use of different language to describe CBT techniques, and sessions that focussed on African-American family issues and African-American female identity. The group of women receiving the culturally adapted CBT treatment showed greater decreases in depressive symptoms than the control group. Whilst not related to adaptation based on ethnic diversity, Propst et al (1992) compared the relative efficacy of a religious form of CBT with a non-religious form of CBT amongst a group of 59 depressed patients who considered spirituality or religious issues either 'important' or 'very important' aspects of their worldview. The study employed both religious and non-religious therapists working in both treatment streams. Participants who received the religious CBT reported a greater reduction in depression and improved scores on measures of adjustment than those who received non-religious CBT. The authors concluded that the results provided support for the adaptation of CBT when working with religious sub-populations.

3.4.3. Summary

Whilst progress has been made over the last 30 years in empirically validating the use of CBT with increasingly diverse ethnic and cultural populations there remains considerable work to be done before CBT could be considered a universally validated treatment approach as was suggested by Beck et al in 1979. With regards to the need for adaptation of CBT, as yet the outcome literature has not emphatically addressed this question. A number of studies have provided support for adapted versions of CBT,

however most of this research has not directly compared adapted and standard interventions with minority groups. The general dearth of this kind of research, may be due in some part to the ethical dilemma that invariably arises in applying a methodology that essentially involves the exclusion of any awareness of a participants ethnic or cultural background. In spite of this inferences can be drawn from studies such as those conducted by Organista et al (1994) who found lower than expected reductions in depressive symptoms after delivering a standard CBT package to a depressed predominantly ethnic minority group. The research of Kohn et al (2002) reported greater reductions in depression for African-American women who received an adapted group CBT package as compared to those who received a non-adapted version. Also the research by Propst (1992) found that incorporating religion into therapy when working with a group of Christian people with depression resulted in greater improvements than when religion was not incorporated into therapy.

In summary, the literature supports the argument that the adaptation of CBT is a worthwhile endeavour. Firstly, the vast majority of studies that have shown CBT to be effective with minority groups have specifically adapted it for the treatment population concerned. Ethically, the exclusion or downgrading of cultural awareness from a therapeutic process would present most well trained clinicians with a significant moral dilemma. And finally, the preservation and appreciation of cultural values within therapeutic settings is a philosophically sound sentiment and entirely consistent with the essence of Ngata's whakatauki that opened Chapter 1. Having established the rationale for adapting CBT, the next section will provide details regarding the types of adaptations that have been employed in other cultural contexts

3.5. Adaptation of CBT

In 1993 the American Psychological Association released a set of guidelines for providers of psychological services to clients of ethnic, linguistic and cultural minority populations (American Psychological Association, 1993). These guidelines make a number of suggestions that emphasise the

importance of therapists familiarising themselves with the cultural context of the client and considering their cultural beliefs when providing interventions.

As with all approaches to psychotherapy, CBT has an associated set of values. It places emphasis on constructs such as cognition, verbal skills, and logical and rational thinking which favour the cultural values of the social paradigm from which CBT emerged. To provide any form of psychotherapy without an awareness of these values—and more importantly without an awareness of the cultural context of the client—is to risk imposing an unfamiliar framework upon ethnic minority groups who are likely to vary in the extent to which they ascribe to a western worldview (Sue, 2002).

3.5.1. From Individual to Collective

Cultural variation in the perspective of relationships is one issue that some authors have cited when critiquing the use of CBT among certain populations. CBT tends to emphasise individual client functioning as opposed to that of the collective. This is illustrated by the example of Markus and Kitayama (1991) who describe an emphasis on compliance and the maintenance of harmonious interdependence between people as an important aspect of the ideology of many Asian cultures. Conversely in American culture, individuals are encouraged to actively express their individuality, and independence from others is highly valued. It could therefore be inferred that an intervention that encourages forthrightness might be less appropriate when working with Asian clients.

A similar cultural phenomenon has been considered by researchers adapting manualised CBT for use with Native American clients. The authors suggest that Native Americans tend to judge themselves based on their perspective of how their family and tribe view them and whether they are contributing positively to their collective context. In light of this they suggest that a more effective therapeutic strategy with depressed clients is to encourage and endorse behaviour that reinforces a healthy inter-dependent self concept, rather than the client viewing themselves as an individual member of the collective (De Coteau, Anderson, & Hope, 2006).

The importance placed on collective wellbeing is also highlighted by Perez (1999) who asserted that problem themes that emerge more frequently when providing psychotherapeutic work to Latino clients involves conflict in interpersonal relations, often in the domains of marriage and family. The author therefore makes an argument for the integration of Interpersonal Therapy (IPT) techniques with CBT when working with Latino clients. Suggested adaptations include the collection of a comprehensive "interpersonal inventory" (p. 175) as part of a CBT formulation. Ideally this inventory should include a review of a range of aspects of a clients relationships with significant others. Perez also encourages the setting of behavioural goals with an emphasis on activities likely to enhance the quality of relational aspects of a clients functioning.

3.5.2. From Science to Spirituality

The inherently dichotomous relationship between science and spirituality is another area that has been identified as a potential barrier to the acceptability of CBT among certain populations. CBT places importance on rational thinking, seeking objective evidence for thoughts, and the reliance on empirical validation. These values underline that CBT has foundations firmly grounded in a scientific view of the world. This has led some authors to question the efficacy of CBT with clients who hold strong spiritual beliefs (Hirini, 1997; Paradis, Cukor, & Friedman, 2006; Renfrey, 1992).

Vicary and Bishop (2005) described a strong tendency among the Australian Aboriginal population to seek out spiritual explanations for mental health issues as well as a preference for more traditional treatment methods. They give the example that in some instances elders might suggest that a depressed person return to their country or area of origin to "spiritually reconnect" (p. 13) with their land. Westerman (2004) suggested that psychologists make a series of specific process adjustments in order to better engage Indigenous Australian clients with mental health services and more specifically psychotherapy. These suggestions include willingness on the part of the therapist to discuss relationships and connections to land with

Indigenous clients, and acknowledging mental health as 'holistic'. She also suggested that clinicians develop a demonstrable knowledge of family groups and tribal boundaries in the region in which they work.

Hays (2006) argued that the Alaska Native client may find the cognitive focus of CBT and the corresponding exclusion of spirituality to be "too narrow". A similar limitation was identified in the provision of CBT to people of Arab heritage, where it was considered that the focus on cognitive and behavioural factors and the emphasis placed on personal independence and autonomy minimised the importance of areas of life considered critical, specifically family interdependence and religion (Abudabbeh & Hays, 2006). Propst et al (1996) advocated the integration of religion into work with traditional or religious Latino clients and reinforced church attendance and prayer as activities that help clients deal with stress and negative mood states.

Paradis and Hatch (1996) elaborated further on the importance of being aware of the impact of religious and spiritual beliefs when providing CBT for anxiety with Orthodox Jews. An awareness of the core set of beliefs shared by all Orthodox Jews is considered an important component of working sensitively with this population and they advocated working collaboratively with a Rabbi. They also encouraged therapists to appreciate the strengths inherent in the Orthodox Jewish community, including strong family support and religious values.

D'Souza and Rodrigo (2004) developed Spiritually Augmented Cognitive Behavioural Therapy. This therapy relied on the main principles of CBT with an additional focus on existential issues and sought to validate and incorporate the client's belief system into therapy. The spiritually augmented CBT also employed behavioural strategies such as the use of meditation, prayers and rituals. The authors concluded that randomised clinical trials found spiritually augmented CBT to be superior to supportive counselling in the treatment of patients with depression and "demoralisation". Importantly

this research would suggest that despite the apparent incompatibility between science and spirituality, it is possible to integrate a spiritual component into CBT without degenerating from its therapeutic value.

3.5.3. The Therapeutic Alliance

Widely considered one of the key predictors of treatment success, the development of a strong therapeutic alliance is a crucial consideration when providing CBT (Gilbert & Leahy, 2007). It has been contended that CBT's solution-focussed approach may be a disadvantage if clinicians focus on the problem at the expense of building a strong alliance with the client (Iwamasa, Hsia, & Hinton, 2006). Several authors have made recommendations regarding the optimisation of the therapist-client relationship in different cultural contexts.

Organista and Munoz (1996) recommend judicious self-disclosure in early sessions on the part of the therapist, including the sharing of background information such as where they are from, their families, and work they have done, as part of building a trusting relationship with Latino people. This more familiar approach to developing a therapist-client relationship contradicts the boundaries that clinicians are traditionally encouraged to maintain in clinical settings (Gutheil & Brodsky, 2008). In spite of this there is a growing body of literature that is more accepting and encouraging of the practice of therapist self-disclosure on the basis that certain disclosures can have a marked therapeutic benefit (MacLaren, 2008).

Providing another perspective on the therapeutic relationship in a different cultural context, Toyokawa and Nedate (1996) provided a case study of a Japanese client receiving CBT for interpersonal problems. The authors emphasised the congruence between Asian cultural values and CBT, primarily due to CBT's structured and prescriptive approach and the relatively immediate focus on symptom reduction. One of the areas in which they recommended adaptation on the part of the therapist, was related to the expectation of many Japanese clients that the therapist is an authority figure and expert who should play the leading role in directing the session. This

therapeutic stance differs from the more collaborative interactions recommended in the CBT literature (Mansell, 2008).

3.5.4. Emotional Expression

Cultural differences in the way that emotions are expressed have been observed across ethnicity, culture and gender (Fischer, Mosquera, van Vianen, & Manstead, 2004). CBT is a therapeutic approach that encourages emotional expression people who express their emotions tend to do better with CBT than those who do not (Samoilov & Goldfried, 2000). In considering the adaptation of CBT it is therefore important to contemplate cultural differences in the expression of emotion.

It has been suggested that in Japanese culture, negative emotions are often minimised or indirectly expressed. Therefore the use of thought diaries to express strong negative emotions, rather than asking clients to express them more directly in session has been advocated (Toyokawa & Nedate, 1996).

Organista (2006) described the Latino characteristic of ‘machismo’ as being an important construct to be aware of when working with Latin-American men. Machismo can be described as an exaggerated masculinity stressing such qualities as virility and physical courage. This phenomenon led the author to suggest a more educational approach when using CBT with this population group as Latin men in particular may view the open expression of emotion as an expression of weakness.

3.5.5. Shifting Ideologies

The importance of taking the ideological perspective of the client into account when providing CBT has been emphasised by a number of the authors cited in this chapter. Hirini (1997) raised the disadvantages of using one culture’s definition of rational thought to assess the rationality of another culture’s thought process. Qualitative research conducted in Australia which interviewed 70 Australian Aboriginal people who had experienced depression or suicidality, identified that one of the main reasons that

"western therapy" was ineffectual was due to culturally inappropriate process on the part of the therapist, as opposed to the type of therapy being provided (Vicary & Westerman, 2004).

Rosello and Bernal (Rossello & Bernal, 1996) describe in some detail the nature of adaptations made to their CBT and IPT treatment protocol for Puerto Rican adolescents with depression. These adaptations included the language used, use of symbols and concepts shared and recognised within Puerto Rican culture (e.g., use of positive Puerto Rican role models as metaphor for change), and providing lists of thinking errors to clients, tailored to ensure cultural relevance.

International authors have highlighted the importance of understanding a client's worldview with regards to social structure and status when providing cognitive behavioural treatment to Hispanic clients. The Hispanic concept of 'respeto' (respect) encourages deference toward people who are older, in positions of authority, parents, and even toward males and husbands in circumstances where women have more traditional gender roles (Interian & Díaz-Martínez, 2007). Similarly, there are unique rules and expectations that govern relationships within traditional Māori society that are associated with such variables as birth order, gender, age, and whakapapa[25] (Durie, 1999). An awareness of the significance of these factors is likely to reduce the risk of misunderstanding and in particular ensure that certain aspects of CBT are applied in an appropriate manner when working with minority cultural groups.

Kelly (2006) encourages therapists to familiarise themselves with historical and generational factors of relevance when providing CBT to African-American clients. In particular the author highlights the American history of slavery, as being something that therapists should consider when formulating cognitive factors such as a client's belief system. This recommendation is one that has relevance to Māori in New Zealand as

[25] Lines of descent between ancestors and their descendants.

historical events such as European colonisation, the New Zealand land wars, and The Treaty of Waitangi have had a lasting generational impact on many Māori families.

3.6. Cognitive Behavioural Therapy in Aotearoa

In New Zealand, there is a great deal of rhetoric emphasising the importance of making CBT relevant to our unique population. For example Blampied (1999) discussed the critical importance of CBT achieving a "local accommodation" in New Zealand to ensure that it more effectively meets the needs of the Māori population. He went on to suggest that this would be one of the key achievements for cognitive behaviour therapists and psychologists in Aotearoa in the 21st century. Evans (2002) echoed these views in his introduction to a special issue of the New Zealand Journal of Psychology expressing his view that the psychological profession needed to adapt to become more culturally responsive to the aspirations and values of the Māori population.

Several Māori psychologists have discussed the application of CBT with Māori. McFarlane-Nathan (1993) recommended using a cognitive model with Māori clients emphasising that it should draw on an understanding of Māori as a client group, utilise culturally appropriate resources present within the community, acknowledge accepted Māori healing processes, and take into account the acculturation factors encountered by Māori. Hirini (1997) on the other hand, raised several concerns regarding the degree of congruence that cognitive behavioural therapy shares with a Māori worldview. He cited the example that the promotion of assertiveness and independence may be a less relevant indicator of healthy social functioning for Māori. Finally, Hirini suggested that CBT might not fully account for the more systemic issues that can be experienced by Māori clients such as discrimination and racism.

There are several parallels between the limitations identified by Hirini, in applying western concepts of psychology to non-western cultural groups, and those identified in the international literature. For example, literature has pointed to a distinct difference in attitudes toward individuality and the

promotion of independence between Asian and American culture encapsulated in well-known proverbial sayings from each culture. In America the well known saying "*the squeaky wheel, gets the oil*" contrasts with a popular saying in many Asian countries, "*the nail that protrudes will be pounded down*" (Markus & Kitayama, 1991). These proverbs indicate that American society is more accepting of individuality and self-promotion whereas Asian society advocates harmonious interdependence with others and conforming.

Underlining the need for research into the use of CBT with Māori is the overwhelming preference for this therapeutic modality among New Zealand psychologists. Kazantzis and Deane (1998) found that a sample of 221 New Zealand psychologists used cognitive approaches more frequently than Australian, British and North American psychologists. Fifty-five percent of New Zealand psychologists identified CBT as their primary therapeutic methodology. Another 33% of respondents classified themselves as eclectic of which over 80% identified CBT as one of their therapeutic modalities of choice. This research would suggest that the great majority of Māori living in New Zealand and receiving psychological treatment are likely to be receiving some form of CBT.

Literary accounts of the adaptation and clinical delivery of CBT to Māori are relatively rare in New Zealand. One study conducted by Herbert (2001) developed two adapted versions of a standard cognitive behavioural intervention for developing parenting skills. She delivered the two adapted parenting programmes as well as the standard programme to a cohort of Māori parents. Whilst results showed improved outcomes across all of the programmes no statistically significant differences between the outcomes of the different programmes were found. However qualitative analysis showed that the clients who received the adapted programmes experienced greater enjoyment, were more accepting of the intervention and valued the program more highly.

The adapted parent training programmes developed for Herbert's study (2001) were entitled the *Whānau Whakapakari Matuatanga Relationships Model* (MRM) and the *Whānau Whakapakari Matuatanga Values Model* (MVM). MRM maintained a similar structure to the standard parent training programme used in the study with an additional emphasis on the relationship between parents, children and the wider family support network (i.e., grandparents, aunties, uncles etc). The MRM training sessions recognised the importance of whānau interactions in child management whereby whānau can play an influential role in family decision-making. MVM was also structured similarly to the standard treatment however was designed to incorporate a core set of values that were identified through a series of focus group interviews. These values included whakapapa, whānaungatanga, and awhinatanga[26].

New Zealand's Department of Corrections have been particularly innovative in developing rehabilitation programmes that are specifically adapted to tend to the cultural needs of Māori inmates, who constitute over 50 percent of the prison population (Ward, Day, & Casey, 2006). One such example is the CBT programme run at Te Piriti, a residential unit for sex offenders based in Auckland that delivers a treatment programme modified to actively incorporate bicultural perspectives (Larson, Robertson, Hillman, & Hudson, 1998). All Te Piriti staff, residents, and visitors engage with the programme via a pōwhiri[27] process and receive treatment that is underpinned by important Māori concepts such as tautoko[28], aroha[29], and whakapapa. This programme was later evaluated and found to be effective in preventing reconviction among both Māori and non-Māori offenders. With regards to treatment outcomes for Māori clients, Te Piriti also compared favourably with its Christchurch-based sister programme Kia Marama. Kia Marama delivered a similarly structured treatment package with significantly less integration of tikanga into their programme. Māori men who completed the Te Piriti

[26] The act of being supportive.
[27] The formal Māori process of welcome.
[28] To support.
[29] Love.

treatment programme that combined a focus on tikanga Māori with Cognitive Behaviour Therapy (CBT) displayed a significantly lower sexual recidivism rate (4.41%) than Māori men who completed Kia Mārama (13.58%) (Nathan, Wilson, & Hillman, 2003).

Whilst the overwhelming theme of the literature cited above would suggest that the integration of Māori concepts and values when delivering therapy to Māori clients is a worthwhile and commendable endeavour, recommendations generally come with a cautionary note. One study which purported to integrate concepts of whānau participation and whanuangatanga into a treatment programme for Māori with issues of alcohol and drug abuse cautioned of the dangers of integrating cultural concepts into therapy on the basis of ethnicity alone. They considered that this could result in Māori clients being treated not as individuals, but in an excessively "stereotypical" manner that could result in unrealistic expectations of the client (Huriwai et al., 2001).

Along similar lines Durie (1995) talks about the existence of "Diverse Māori Realities". He posits that it is important to take into account that many Māori currently have limited access to their culture and for many "being Māori" may only form a small part of their overall identity. It is widely considered that providing therapy that is responsive to the individuality of the client is a crucial component of effective therapy (Constantino, Arnow, Blasey, & Agras, 2005; Davila & Levy, 2006; Stiles, Barkham, Twigg, Mellor-Clark, & Cooper, 2006).

3.7. Summary

The extensive empirical validation undergone by CBT over the past 30 years has established it as the psychological approach of choice in the treatment of depression worldwide. Despite the large volume of research validating its use less is known about its effectiveness among ethnic minority groups, as the most statistically robust of these studies tend to recruit their participants from relatively homogenous western populations. A rapidly growing body of

literature has provided empirical support for the adaptation of CBT to make it a more relevant intervention for minority groups.

Adaptations to CBT have been recommended across a range of cultural contexts by a number of authors. These have included the incorporation of a spiritual dimension in CBT, the integration of collective cultural values, different techniques for building a therapeutic alliance, and an awareness of ideological differences.

Despite strong sentiments from the New Zealand psychology fraternity, only limited progress has been achieved in adapting and validating CBT for the Māori population and as yet there are no guidelines for practising clinicians informing them of how CBT in particular might be adapted to better meet the needs of Māori receiving treatment. In New Zealand over half of practicing clinical psychologists describe themselves as having a “cognitive behavioural” orientation. A desired outcome of this research is that the findings will serve as a reference point for cognitive behavioural therapists working with Māori clients by providing practical suggestions regarding the adaptation of their practice, ultimately benefiting the clients and their families.

Chapter 4 - The Current Research

4.1 Outline and Aims

This chapter will outline the goals and rationale of this research which involved the development and validation of a treatment package for a specific client group. It will present the key rationale for focussing on the particular area of research and outline the decision making process that resulted in the methodological approach used.

4.2 The Research Questions

1. *How can CBT be adapted to make it a more appropriate therapeutic modality when working with Māori clients experiencing symptoms of depression?*

In his whakatauki Sir Apirana Ngata encourages Māori to embrace the 'treasures' of their ancestors. The treasures referred to by Ngata have been widely interpreted to extend beyond objects of material value and also include Māori customs, values and beliefs. Consistent with the themes inherent in the famous whakatauki the first phase of this study was to integrate a series of cultural adaptations into an extensively researched and widely utilised psychological 'tool' (i.e., Cognitive Behaviour Therapy for depression) with the goal that this hybrid approach would better reflect the worldview and values of Māori tangata whaiora. Therefore the first major goal of this study was to develop a structured approach to Cognitive Behavioural Therapy (CBT) for depression with adult Māori that incorporated aspects of Māori custom or tikanga and ensured that the therapy provided was consistent with a Māori worldview.

This research question is consistent with the growing body of international literature that encourages clinicians to apply specific process and structural adaptations when applying the tenets of CBT to various non-western

populations. This process will yield a useful addition to the current state of knowledge and assist and guide CBT practitioners as to the types of adaptations that they might make to their practice in order to engage more effectively with their Māori clientele.

2. *What impact does this culturally adapted cognitive behavioural approach have on Māori clients with depression?*

The second phase of this study focussed on determining the impact of the developed intervention across a range of variables of interest. Firstly it set out to ascertain whether this adapted version of CBT could demonstrate comparable rates of clinical efficacy, to those reported in the international literature regarding CBT and depression. This is an area that has been challenged by a number of authors who have suggested that predictions regarding treatment outcome should be more modest when applying 'empirically supported therapies' to non-western populations (e.g., Westen et al., 2004).

Understanding the impact that psychological therapy has on the domain of culture was an important aspect of this piece of research. Cultural constructs of significance to Māori such as spirituality and cultural identity were therefore examined as part of this piece of research.

3. *How do participants react to the integration of cultural adaptations into the cognitive behavioural treatment approach?*

Based on self-report, this involved the review of participants' overall satisfaction with various aspects of the therapeutic approach. It also specifically requested qualitative feedback on the reaction of participants to the adapted intervention.

4.3 Rationale for selection of Māori as client population

As has been discussed in Chapter 4, Māori in New Zealand are disproportionately represented in statistics that indicate that they experience

poorer health outcomes in relation to non-Māori. The results of Te Rau Hinengaro (2006) have given greater certainty to the assertion that Māori experience a higher prevalence of common mental disorders than the rest of the New Zealand population. Te Rau Hinengaro reported that Māori displayed a significantly higher prevalence of mood disorders, anxiety disorders, and substance use disorders in comparison to non-Māori. These figures indicate that despite the allocation of government resource into the fields of health and education aimed at addressing this imbalance, inequities between Māori and non-Māori in the incidence of mental illness remain significant.

Te Rau Hinengaro also reported on the low rate of health service utilisation by Māori with mental illness (e.g., of those Māori experiencing *serious* disorders only 52.1% had contact with the health sector). Whilst the Te Rau Hinengaro study did not explore causative explanations for the low rate of service utilisation by Māori, their findings would certainly support the over-arching goals of the current research. In particular, improved service utilisation is one of the potential flow-on effects of improving the treatment experience for those Māori who do access mental health services.

Articles in the Treaty of Waitangi as well as modern interpretations (e.g., Durie, 1989; Kawharu, 1989), allude to crown/government obligations to ensure equity in terms of access to health services and the experience of good health itself. Furthermore, the results of Te Rau Hinengaro provide strong justification for further research that has potential to improve psychological service provision to Māori.

4.4 Rationale for Focus on Depression

As has been established in previous chapters a broad spectrum of clinical disorders, including depression, impact on Māori at a disparate rate (e.g., mood disorders, anxiety disorders, substance related disorders). This presented a dilemma in that the methodological process normally employed in treatment outcome research, requires an exclusive focus on the treatment of a single disorder (Westen et al., 2004). A decision was therefore made to

focus on depression albeit with less stringent inclusion criteria than is typically employed by traditional treatment outcome research. The rationale for focusing on depression is outlined below.

Firstly, the majority of international research in the cross-cultural application of CBT has focussed on depression (e.g., Cabassa & Hansen, 2007; Interian, Allen, Gara, & Escobar, 2008; Interian & Díaz-Martínez, 2007), rather than some of the promising but relatively less developed applications of CBT. Subsequently it was decided that a focus on depression would be more consistent with the literary trend of the international research.

Secondly, depression has been extensively researched from a cognitive behavioural perspective with numerous studies examining the efficacy of CBT for depression with a range of sub-populations having been conducted since the publication of Beck et al's (1979) depression treatment manual. Whilst international treatment outcome research on CBT has now shifted to other disorders (e.g., anxiety disorders, substance abuse, personality disorders) the cross-cultural validation of CBT remains a relatively new field and is an almost entirely unchartered area with regards to empirical validation with Māori making depression an appropriate 'starting point' in the evaluation of a culturally adapted therapy.

Finally, as discussed in Chapter 2, depression is responsible for high levels of disability and has debilitating individual and social consequences. It is also well documented that mental illness—and in particular a diagnosis of depression—is a primary predictor of both attempted and actual suicide (Skegg, 1997). Suicide rates in New Zealand have been found to be significantly higher amongst Māori compared to other ethnic groups (Hirini & Collings, 2005). These factors in combination make a study that seeks to enhance psychological treatment outcomes for Māori with depression a highly relevant endeavour.

4.5 Rationale for Focus on Cognitive Behavioural Therapy

As reviewed in Chapter 3, CBT has been extensively empirically validated and refined. Alongside Interpersonal Therapy (IPT) it is considered the therapeutic modality of choice for not only depression but also a range of DSM-IV-TR disorders that have been shown to respond positively to psychological treatment. Having selected depression as the focus of clinical attention the decision to examine CBT was more complicated. A compelling case was initially considered for selecting IPT rather than CBT based on the argument that IPT, with its focus on relationships, might be a more appropriate fit with the Māori perspective that places importance on connection to ones wider human context. Ultimately the decision to examine CBT was based on several related factors.

Firstly, CBT is based on a western ideological framework the nature of which has been covered extensively in chapter 3. Chapter 3 presented a range of examples in which the philosophical ideology of CBT conflicts with the worldview of a diverse range of primary ethnic cultural groups and highlighted several aspects of a Māori worldview that are incongruent with the assumptions which underpin CBT. International literature regarding the application of CBT with ethnic minority groups is unanimous in recommending culturally appropriate adaptation (e.g., Abudabbeh & Hays, 2006; Kelly, 2006; Mansell, 2008; McDonald & Gonzalez, 2006). The appropriateness of CBT for use with Māori clients has generated debate over the years (e.g., Hirini, 1997) and a goal of this study was to progress this debate from the theoretical to the applied realm. In New Zealand only the research of Herbert (2001) has empirically evaluated the crafting of a CBT program for Māori consumers when she delivered a group parenting program to Māori parents. The current research differed from Herbert's study as it evaluated the individual delivery of CBT for a diagnosable disorder thus addressing an important void in the New Zealand literature regarding psychological service delivery to Māori.

Once again, the trend of international literature was a consideration in selecting CBT over IPT. With few exceptions (i.e., Constantino et al., 2005; Perez, 1999) cross cultural validation of psychotherapy for depression has focussed on CBT. Several international studies have shown that appropriately adapted CBT can be an effective psychological treatment approach with several minority ethnic groups. The findings of these studies indicated that ethnic groups who shared relevant ideological characteristics with Māori (particularly with regards to perspectives on family relationships), generally responded positively to the adapted application of CBT (e.g., Iwamasa et al., 2006; McDonald & Gonzalez, 2006; Organista, 2006). Given that such validation has occurred in other cultural contexts it was considered timely and appropriate that similar evaluation take place with Māori in New Zealand.

One of the over-arching goals of this study is to contribute to better mental health outcomes for Māori, therefore the strongest case for the focus on CBT emerged from an aspiration that the findings of this study have a practical influence on the practice of clinical psychologists in New Zealand. It has been reported that the overwhelming majority of practicing psychologists in New Zealand operate primarily from a cognitive behavioural perspective (Kazantzis & Deane, 1998). In light of the large proportion of New Zealand psychologists who are trained and use CBT as their preferred modality of treatment, it was considered imperative that the current research provide them with guidance and direction as to the aspects of their practice that might be adapted to reflect the ideological difference that exists between cognitive behavioural theory and Māori worldviews. In this regard, having clinicians *adapt* their current practice when working with Māori as a consequence of findings from this study was considered a more realistic and less disruptive prospect than having clinicians adopt alternative models of therapy.

4.6 Methodology and Design

Independent samples (between subjects) designs have frequently been used in CBT outcome studies (e.g., Herbert, 2001; Kohn et al., 2002).

Conversely, smaller CBT outcome research has used repeated measures with a within subject design and delivered the same treatment to all participants (e.g., Feather & Ronan, 2006; Gelman, 2004; Interian et al., 2008; Interian & Díaz-Martínez, 2007). The broad aims of this study were to firstly develop a 12–session cognitive behavioural treatment protocol for depression, customised and 'culturally adapted' for use with Māori adults diagnosed with a depressive disorder. Consequently the effectiveness of this approach would be examined by comparing it with a baseline phase during which participants received no psychological treatment.

The two major stages of this study are depicted in Figure 2 below. The first of these involved consultation and subsequent development of a 'culturally adapted' treatment manual appropriate for the use with adult Māori clients experiencing symptoms of depression. The process involved in the development of the treatment protocol utilised in this study and the

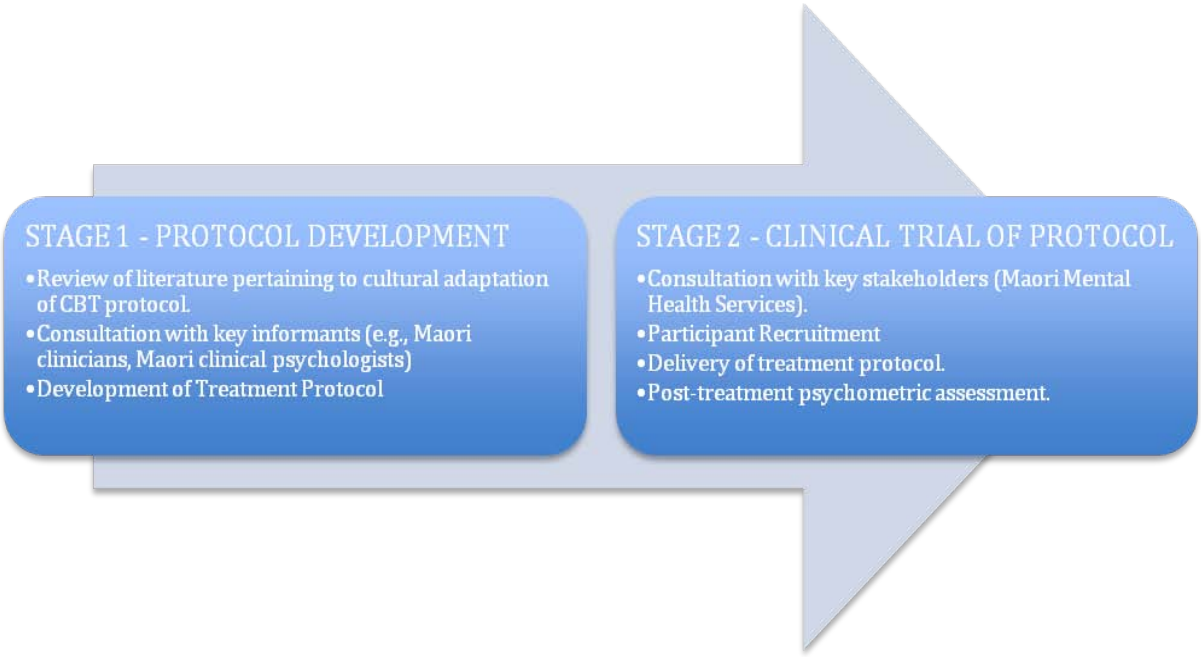

Figure 2. Diagram depicting progressive phases of the current research project

implemented adaptations are described in detail in Chapter 5. The second stage of the study was the clinical phase during which the developed protocol was trialled with a clinical population of adult Māori with a diagnosis

of depression. The methodological process involved in this phase is described in Chapter 6.

This study employed multiple single case studies using a within-subjects design to examine the efficacy of a new manualised treatment protocol delivered by the primary researcher. Similar to the design used by Herbert (2001), it had originally been planned to have two distinct treatment groups, both Māori, with one receiving standard CBT for depression and the other receiving a culturally adapted version of CBT. It was anticipated that comparing these two groups could address the highly relevant question of whether making cultural adaptations to CBT would enhance outcomes for Māori clients. Furthermore, an independent samples design is a stronger design for determining treatment efficacy, as it allows for direct comparison of a given treatment with a control or alternative treatment. The factors considered in deciding to change the study from an independent samples design to a repeated measures design are outlined below.

Firstly, power analyses were conducted to determine the sample size required to detect both a small and medium sized difference between treatment outcomes. Difficulty obtaining the necessary statistical power required to detect a difference in the treatment outcome was identified as a potential issue. Cohen's criterions for defining a small (d = 0.2) and medium (d = 0.5) effect size were used to calculate that an n of 176 would be required to detect a medium-sized difference between means and an n of 1084 would be required to detect a small difference between means[30]. Samples of this size were considerably beyond the logistical scope of this study.

Secondly, although the adaptation of CBT with Māori has not been scientifically investigated or validated there remains a large body of literature that already recommends making appropriate adaptations to CBT when working with specific populations. This would raise questions about

[30] This calculation used α and β values of 0.05.

the integrity of a design that included a “CBT as usual” control group, since to exclude such practices arguably would not reflect the existing best practices of the field. The design of this study was therefore based on the assumption that adapting psychotherapy to reflect the cultural characteristics of the client is a worthwhile and necessary endeavour when providing CBT to ethnic minority populations and in this case when working with Māori.

Thirdly, HRC guidelines for research involving Māori emphasise the importance of considering the possibility of negative outcomes of any given piece of research, pointing out that the researcher is responsible for the implications of results. Given the results of the power analyses reported above, had the results failed to detect a difference between the two treatment approaches this could be misinterpreted as *equivalence* of adapted versus standard practice. Applied more broadly this may lead clinicians to conclude that there is no need to adapt practice when working with Māori. Such an outcome would contradict the overwhelming theme of international and local literature encouraging psychologists to adapt their practice when working with clients of other cultures. Furthermore, such an interpretation would oppose the philosophically and morally sound argument for the adaptation of CBT in different cultural contexts.

And finally the fourth consideration was that the therapy in this study was carried out by a sole clinician (the primary researcher), therefore the issue of therapist allegiance was identified as a potential flaw in the independent samples design initially considered. Analyses of treatment comparison studies have found that outcomes favour the theoretical orientation of those conducting the study, whereby the treatment approach to which the researcher has an allegiance, tends to perform more favourably in comparative studies of psychotherapy (Luborsky et al., 1999). The significance of this finding related to the current study, is that prior to beginning the study, the researcher had worked in the broad area of Māori mental health for five years. The majority of that time was spent working for

a Māori institution providing CBT to Māori clients informed by a knowledge of Māori tikanga and with ready access to cultural resources (e.g., kaumātua [31], cultural supervision, and marae) within that clinical setting. Therefore given the researchers prior experience in providing an adapted form of CBT to Māori clients, it would have been desirable and probably necessary for the integrity of the research, to control for the variable of therapist allegiance. Controlling for therapist allegiance typically involves more than one therapist delivering the mode of therapy to which they are most strongly aligned (e.g., Linehan et al., 2006). As this study used just one clinician to deliver therapy such a control measure was not possible. Whilst the sole-therapist format has weaknesses, it should also be noted that by maintaining a 'sole therapist' design one of the major sources of confounding variation in treatment outcome research ('therapist factors') is eliminated.

Treatment outcome research internationally tends to place primacy on highly controlled studies with large *n*. Due to the niche nature of the area, these studies are rare in the broad field of cross-cultural CBT research and non-existent in New Zealand where the size of our general population makes such studies impractical[32]. Therefore given the area of research and the population of interest there is a precedent for smaller scale studies that utilise a single case study design. Interian et. al (2008) employed an almost identical design when trialling an adapted CBT treatment protocol for Hispanics with depression. Such a methodology also has precedent within the small number of treatment outcome studies that have been conducted in New Zealand one of which employed a multiple single case study design to trial the effectiveness of a manualised trauma-focussed CBT programme for abused children with PTSD (Feather & Ronan, 2006).

There is debate regarding the types of research methodology that should be used when conducting research involving Māori participants. The literature

[31] An elder.
[32] According to the most recent census (2006) 4,143,279 people resided in New Zealand on 7th March 2006. The number of people in New Zealand identifying as Māori at that time was 565,329 comprising 13.6% of the population.

makes a distinction between kaupapa Māori research methodology and Māori-centred research methodology (Health Research Council of New Zealand, 2008). In kaupapa Māori research the associated standards and control remain within Māori institutions and organisations and typically the research team consists exclusively of Māori—this differs from 'Māori-centred' research in which the standards and control remain with a non-Māori institution such as a university as is the case with the current study. The Health Research Council (HRC) have been active in operationalising guidelines (2008) that encourage a diverse range of approaches to Māori research. They emphasise cultural consultation at a range of levels, which include the background of the researcher, development of research questions, study design, participants, consent process, and the dissemination of results.

Conducting psychological research using kaupapa Māori methodology (by its purest definition) is currently inhibited by the absence of institutions with the necessary expertise to support and supervise such research. Whilst the definitions outlined above might position Māori-centred research and kaupapa Māori research as mutually exclusive endeavours it is the view of this researcher that this distinction is excessively simplistic and risks positioning Māori-centred research as 'less Māori' than kaupapa Māori research. As suggested by Herbert (2001), due to the diversity of Māori reality there can be no one prescribed model for the conduct of Māori research. Rather it is suggested that Māori research based in universities, form mutually beneficial links with the more traditional foundations of kaupapa Māori research. Herbert's sentiments formed the basis for the conduct of this study, which merged both approaches through consultation, and dissemination of the research to both non-Māori and Māori institutions. Such a balance was deemed an appropriate choice for a study that integrated Māori and western ideologies.

4.7 Summary

This research project involved the adaptation of a CBT treatment manual for depression for delivery to adult Māori clients. Using multiple single case

studies and a within subjects design the impact of the intervention was assessed across a range of variables of clinical and cultural relevance. The decision to examine the area of CBT for depression with Māori was based on international and local research as well as epidemiological data that suggested this field was highly relevant and potentially valuable, but relatively untouched empirically.

The evolution of the methodological approach is described above and involved compromises, in particular the decision to select a within–subjects design. These included the use of a less robust wait-list control and a weakened research design. This decision also led to subtle changes in the nature of the research questions that could be addressed. A between–subjects design would have allowed a more direct comparison between the relative efficacy of adapted and non-adapted CBT with Māori.

Whilst the current methodology will not allow for a direct comparison between adapted and non-adapted CBT with Māori clients experiencing depression, it will address, arguably the more appropriate preliminary question, of *whether* CBT can be an effective treatment with Māori clients. Despite the more modest goals, given the burgeoning nature of treatment outcome research in New Zealand and our limited knowledge of CBT's effectiveness for Māori clients these are surely, a more appropriate empirical starting point for research of this kind.

Chapter 5 – Protocol Development

5.1 Outline and Aims

The primary goal of this chapter is to outline the process involved in developing an adapted CBT treatment manual for Māori clients. An initial discussion regarding the use of treatment manuals in psychological research will be followed by a description of the consultation with advisors involved in developing the treatment manual used in this study. The nature of the adaptations that emerged from the consultation process are categorised and described using examples and cultural rationale for the adaptations are provided.

5.2 Manualised Treatment

The first psychotherapy treatment manuals were designed to assess the effectiveness of behavioural therapies in the late 1960s (Dobson & Shaw, 1988). Research examining the efficacy of a given treatment approach utilised treatment protocols as a mechanism for standardising the therapy delivered to a number of individuals and also allow for efficacy studies to be replicated with different populations. The advantage of this approach was that it allowed a number of individuals to be compared in terms of their response to a given type of treatment.

Despite the identified need for some form of standardisation of therapeutic delivery when conducting comparative studies there remains a degree of apprehension among many therapists as to the benefits of 'manualised' treatment. There is a perception that the use of treatment protocols render redundant many of the key hallmarks of a skilled clinician including flexibility and clinical judgment, while undervaluing the importance of tailoring treatment to the individual requirements of different clients (Addis & Krasnow, 2000).

In a wide ranging review of the costs and benefits of treatment manuals Dobson and Shaw (1988) highlighted enhanced internal validity, ability to monitor “extraneous” treatment factors, ability to replicate, facilitation of training, and the identification of effective therapies as the key advantages of the use of treatment manuals. Conversely they suggest that the diminished capacity to assess therapist variables, the therapeutic process and the over-arching focus on treatment fidelity rather than therapist competence as being the primary disadvantages. Despite the documented criticisms, Wilson (1998) argues that treatment manuals can provide greater flexibility than they are widely attributed, and importantly in the context of the goals of the current research, also suggests that the presence of co-morbid factors does not pre-empt their use.

The Beck et al (1979) CBT manual for depression remains one of the most influential developments in the field of psychotherapy. Four key phases of the approach described by the Beck et al manual for treating depression are a) the development of a shared conceptualisation, b) behavioural and motivational interventions, c) cognitive intervention, and finally d) review of assumptions/beliefs that underpin depressive thinking. Despite being published 30-years ago this manual continues to form the structural basis of many Cognitive Behavioural treatment manuals developed for efficacy studies (e.g., Clarke et al., 2005; Gollan, Gortner, & Dobson, 2006; Interian et al., 2008). The current study uses the basic therapy structure employed by Beck et al as a starting point for the cultural adaption of CBT.

5.3 Adapting CBT: Advisory Group Consultation

The adaptation of CBT was informed by consideration of international and local literature related to the theory and practice of CBT, the primary researchers clinical experience as well as a semi-formal consultation process. Ten clinical psychologists were approached to participate as advisors to assist in the adaptation of guidelines for an adapted Cognitive Behavioural Treatment program for depression. Whilst all ten who were approached expressed a willingness to participate in the advisory group, due to availability and time constraints the final consultation occurred with seven

of the ten originally approached. All seven were experienced clinical psychologists working at a 'Consultant' level with a minimum of ten years of applied clinical experience. Four consultants were of Māori descent and three of Pākehā descent. Three of the consultation group were female and four were male and all used CBT as part of their current practice when working with Māori clients.

These clinicians were identified due to their experience and expertise in working with Māori and/or their knowledge of the applied science of Cognitive Behaviour Therapy. The personal networks of the researcher as well as geographical proximity assisted the final selection of consultation group members. Semi-structured face-to-face interviews were conducted with three of the advisory group members and written and verbal input (via phone, e-mail and face-to-face) was provided by the others. Information sought from the advisory group fell into four broad areas: feedback on the general design of the study, limitations of CBT with Māori, process adaptations when working with Māori, and structural adaptations when working with Māori.[33]

Perhaps the most significant change that occurred with regards to methodology was the decision to change the study from an independent sample design to a repeated measures design—this occurred in part due to feedback received from the advisory group. A full discussion of the considerations that resulted in the design of the study being amended can be found in the previous chapter (refer to Section 4.6).

The feedback from the advisory group regarding the limitations of CBT was generally consistent with the literature previously cited. A number of advisors suggested that whilst the broader principles of CBT were applicable to Māori, often limitations arose in the manner in which these principles were applied. With many of the consultation group, this gave rise to a wide–ranging discussion regarding a series of process and structural adaptations

[33] See Appendix E for a list of questions asked of the Advisory Group.

utilised by members of the advisory group to improve the relevance of CBT to Māori clients. None of the individuals consulted as part of the advisory group interviews considered the limitations of CBT to be insurmountable or grounds for not using CBT with Māori clients. This section will outline the process and structural adaptations that emerged from the advisory group consultation categorised into broader cultural domains.

5.3.1 Whakawhanuangatanga[34]: The domain of connectedness

Whakawhanaungatanga has been variously described in the literature. For the purposes of this study the definition offered by Bishop (1998) is preferred. He describes whakawhanaungatanga as the "process of establishing family (whānau) relationships, literally by means of identifying, through culturally appropriate means your bodily linkage, your engagement, your connectedness, and therefore, an unspoken commitment to other people".

The advisory group unanimously identified the therapeutic relationship as a crucial factor in ensuring that CBT was effective with the Māori clients with whom they worked. Some members of the group suggested that the formality of the therapeutic relationship in western models of psychotherapy could be excessively restrictive and prevent engagement at a more personal level with Māori clients.

Psychodynamic theorists since Freud have actively discouraged the disclosure of personal information by therapists. It has been suggested that such actions can interfere with therapy, shift the focus from the client and depending on the type of disclosure, potentially diminish the client's regard for the clinician as a role model.

CBT is a therapeutic modality that is characterised by a more active deportment on the part of the therapist that allows for higher levels of emotional support and empathy than would be typical of the insight-oriented

[34] The act of establishing whānau connections.

therapies (Keijsers, Schaap, & Hoogduin, 2000). Despite this, research suggests that therapist self-disclosure is a seldom used technique in CBT; for instance one study comparing CBT and insight oriented therapies found no significant difference in the frequency of therapist self-disclosures (Stiles, Shapiro, & Firth-Cozens, 1988). Reservations have also been raised regarding the clinical benefits of self-disclosure by the therapist with one review concluding that research findings suggested therapist self-disclosure was not a powerful therapeutic intervention (Orlinsky & Howard, 1986).

Forming a personal connection with clients was a commodity considered crucial by the advisory group in working effectively with Māori. Specifically, several advisors identified therapist self-disclosure as an effective and commonly used component of their clinical practice with Māori. Furthermore, the notion of utilising self-disclosure to facilitate a more personal therapeutic relationship with clients—as identified by the advisory group—is consistent with current trends in international research. Those trends suggest that a degree of therapist self-disclosure can have a positive impact on the therapeutic alliance and treatment outcome (e.g., Barrett & Berman, 2001; Knox & Hill, 2003). The sentiments of the advisory group are also echoed by research and literature recommending adaptation of CBT with ethnic minority groups. For example, the sharing of personal information between the therapist and client is encouraged as part of the initial engagement with Latino clients (Interian & Díaz-Martínez, 2007; Organista, 2006).

The types of information disclosed to clients by therapists in the advisory group included iwi and hapu affiliation, working history, and family background. Where personal connections were made, or similarities identified between the client and the therapist these were acknowledged and further discussed. For example, were it to emerge from the self-disclosure process that the client and therapist were from the same iwi or hapu, these similarities would be acknowledged and discussed with reference to any connections of significance. The goal of these disclosures was described by one of the advisory group as a crucial part of the process of

"whakawhanaungatanga" and an integral part of working effectively with Māori clients.

As part of their overall assessment, some of the advisory group described conducting a more thorough assessment of a client's iwi affiliation and whakapapa. This would provide additional information regarding the extent to which the client identifies with their Māori ancestry and also provide a starting point to begin understanding the significance of different whānau relationships. Members of the advisory committee were supportive of the use of a genogram[35] to elucidate the nature and significance of clients wider whānau connections. Genograms have been used in the field of marital and family therapy for many years. Their primary purpose is to view problems across three or more family generations using symbols and a diagrammatic form viewing multiple contextual levels. Genograms place importance on a wide range of constructs including ethnicity, religion, race, class, and sexual orientation (Butler et al., 2008). For some of the advisory committee the use of a genogram formed an important part of the conceptualisation process which is considered so crucial to the practice of CBT (Clark, Fairburn, & Jones, 1997). Therefore the two specific adaptations that were implemented in the domain of whakawhanaungatanga were as follows:

> ***ADAPTATION ONE**:* Specific and judicious self-disclosure was employed by the therapist. The primary goal of this process was to share whakapapa and establish meaningful connections with the client.
>
> ***ADAPTATION TWO**:* Deeper exploration of whakapapa (genealogy) occurred through the use of a genogram. This was utilised in the initial sessions as part of the assessment process.

5.3.2 Te taha wairua: The domain of spirituality

It has been suggested that the scientific, evidence–based, foundations of CBT are often at odds with the perspective of Māori who tend toward spiritual and metaphorical explanations for events (Hirini, 1997). Concerns regarding the omission of spirituality from CBT are shared by international

[35] See Appendix F for an example of a genogram.

experts who suggest, for instance, that the inclusion of spirituality should form an important component of CBT with American Indian clients (McDonald & Gonzalez, 2006).

Recent commentary and research has examined the interaction between spirituality and CBT, exploring the incorporation of religion and client belief systems into the treatment process (D'Souza & Rodrigo, 2004; Koenig, 2007). One study with a between-subjects design delivered two versions of CBT (religious and non-religious) to Christian clients with depression. The authors found that clients who received religious CBT improved significantly more than those who received a non-religious version (Propst et al., 1992). Adaptations included providing clients with Christian religious rationales for the procedures, Christian arguments to counter irrational thoughts, and the use of Christian imagery. Paradis et al (2006) described a similar range of considerations in incorporating religious beliefs, including the use of prayer in CBT, when treating Orthodox Jew clients with anxiety disorders.

Te taha wairua or the spiritual domain is one of the four cornerstones of Māori health as identified in Durie's influential model (Durie, 1984). It was therefore fitting that a number of the advisory group identified the exclusion of spirituality or 'taha wairua' as a significant oversight and limitation of CBT when working with Māori.

It was the view of the advisory group that the construct of taha wairua whilst inclusive of religious beliefs was a broader concept than that encapsulated by religion alone. Implicit within this broader definition of was the importance placed on connection and access to environmental resources of cultural significance including marae, whenua (land), maunga (mountains), and awa (rivers). Additionally some of the advisory group emphasised the connection to tipuna[36] as being an important component of Māori spirituality. The animistic belief that all things living and non-living possess a spirit, such as those held by many Native American cultures, could be compared to the

[36] Ancestors

Māori concept of mauri[37]. Mauri has been described as the essence or life-force of something and is a quality ascribed not just to people but inanimate objects such as mountains, lakes and rivers (Durie & Hermansson, 1990). Understanding a client's level of access and connection to resources of cultural significance formed an important part of the assessment process for several of the advisory group. Two of the advisory group pointed out that in their work with Māori clients often therapy objectives involved setting goals and formulating plans to improve access to these resources.

The advisory group unanimously endorsed the use of appropriate whakatauki or karakia to open and close sessions with Māori clients. Rather than this being seen as a purely ritualistic or procedural process the advisory group highlighted the importance of selecting whakatauki or karakia that had some relevance to the phase of treatment. Some of the advisory group assisted by providing whakatauki and karakia that they utilised in their own work and which they considered to be meaningful in the context of mental health care. Some of the consultants suggested that the protocol should give clients the option of beginning and ending sessions with whakatauki or karakia rather than assuming that they would be comfortable with this process. The specific adaptations that were incorporated in the domain of taha wairua were:

> ***ADAPTATION THREE***: The assessment included a thorough exploration of the clients' level of access and connection to resources of cultural value (e.g., maunga, awa, whānau).
>
> ***ADAPTATION FOUR***: Clients were consulted prior to the beginning of sessions and when they expressed comfort with this process, sessions were opened and closed with karakia or whakatauki. Participants were encouraged to take increasing responsibility for the selection and delivery of karakia or whakatauki.

5.3.3 Te taha whānau: The domain of extended family

The notion that whānau can play a protective role in relation to mental illness and stress has long been promoted by Māori academics (e.g., Diamond,

[37] Essence or life force.

2005; Durie, 1999; Herbert, 2001; Pitama et al., 2007) and Te Taha Whānau is another of Durie's (1984) cornerstones of Māori health. In his related commentary Hirini (1997) pointed out that the individual and less collective focus of CBT was a potential barrier to engaging effectively with Māori clients and their whānau. He gave the example that CBT interventions which fostered independent thought or assertiveness may contradict collective Māori values.

Past authors have highlighted the individual focus of western psychotherapies reflecting the more individualistic and independent culture of western society. This has however been contrasted with, for example, the cultural perspective of eastern cultures who place a greater emphasis on mutual dependence and loyalty to one's family (Toukmanian & Brouwers, 1998). Literature regarding the culturally-competent delivery of CBT emphasises that an awareness of where clients exist on the 'individualistic–collectivistic' continuum is crucial when challenging the veracity of automatic thoughts, or assessing whether intermediate assumptions and core beliefs are maladaptive or in fact a consequence of a collective belief system. As an example, Stipek (1998) found that Chinese students reported that they would experience greater levels of shame and guilt than American students were a family member found to have committed some kind of moral transgression. In a clinical context, an awareness of these cultural differences should inform work with Chinese clients to reduce the chances of misinterpretation and pathologising beliefs (e.g., 'the actions of my family are a direct reflection of me') which in certain cultural contexts may be entirely valid.

Similarly as a culture Māori tend toward a collective as opposed to individualistic identity (Novitz, Willmott, & Willmott, 1989). Feedback from the advisory group encouraged a more inclusive approach to treatment with Māori clients. Suggestions included extending an invitation to participants in the initial appointment letter to bring whānau support to initial sessions and involving whānau as active participants in treatment objectives (e.g.,

participating in behavioural experiments). The two adaptations below were therefore incorporated into the treatment manual:

> ***ADAPTATION FIVE***: Participants were actively encouraged to include appropriate whānau in their treatment by inviting them to sessions. This invitation was extended in the Information Sheet provided to potential participants and reiterated at the time of initial contact.
>
> ***ADAPTATION SIX***: Opportunities were identified to involve whānau in treatment objectives as both supporters, collaborators and active participants whereever possible and appropriate.

5.3.4 Whaikōrero[38] – The domain of metaphor

The majority of psycho-educational material utilised by clinical psychologists uses euro-centric examples to illustrate important cognitive behavioural concepts such as the connection between thoughts and emotions. An example of this is the psycho-educational material information used in the popular CBT manual *Mind Over Mood* (Greenberger & Padesky, 1995). *Mind Over Mood* uses a series of vignettes to illustrate the key tenets of CBT in an applied manner. However the vignettes and associated characters utilised tend to reflect mainstream cultural influences in the United States of America.

Research into the therapeutic use of imagery has suggested that when information is organised and interesting, emotionally evocative, and utilises multiple sensory capacities our verbal memory for that information is improved (Cahill, Prinst, Webert, & McGaugh, 1994). Perhaps capitalising on this phenomenon the use of metaphor is a commonly used and effective technique in the skilled application of CBT (Otto, 2000).

The use of traditional cultural stories or proverbs to facilitate therapeutic change when conducting psychotherapy with minority ethnic groups is not a

[38] Whaikōrero are formal speeches generally made by men during formal welcome ceromonies (pōwhiri). The skilled delivery of whaikōrero often involves extensive use of metaphor (Durie, 2007).

new notion either internationally (e.g., Malgady, Rogler, & Costantino, 1990) or with Māori clients (Cherrington & Rangihuna, 2000). Members of the advisory group endorsed the use of 'culturally appropriate' metaphor in the form of whakatauki, with some indicating that it was a common component of their work with Māori clients. A series of appropriate whakatauki were identified that had relevance to therapeutic goals and were consistent with CBT treatment goals. Using culturally relevant examples were a common part of the practice of the advisory group who used whakatauki and karakia often selected to reflect the focus of the session. The advisory group unanimously endorsed the use of culturally relevant examples and vignettes.

The advisory group reported using Te Whare Tapa Wha in a visual form as part of the assessment and ongoing monitoring of progress with their Māori clients. The advisory group suggested utilising Te Whare Tapa Wha as a means of considering the strengths and weaknesses of study participants across the four dimensions. The metaphor of a whare was extended to the cognitive formulation stage to include analogies between early life experiences and the 'foundation of the whare' as well as coping/protective strategies and the 'roof of the whare'.

> ***ADAPTATION SEVEN***: Translations will be given to clients of whakatauki that had relevance to treatment objectives.[39]
>
> ***ADAPTATION EIGHT***: A series of vignettes highlighting a Cognitive Conceptualisation and the application of the 5-Part model will be developed to ensure improved relevance to the reality of Māori clients.[40]
>
> ***ADAPTATION NINE***: Clients will be socialised to the Māori health model 'Te Whare tapa Wha' which will be utilised as a model for assessment, formulation and ongoing monitoring.[41]
>
> ***ADAPTATION TEN***: The use of visual approaches to formulation and thought recording will be extended whereby all thought records (from basic through to extended) were completed in a diagrammatic form.[42]

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[39] Refer to Appendix G for selected examples of whakatauki used in the treatment
[40] Refer to Appendix H for examples of vignettes applied to adapted versions of the Cognitive Conceptualisation and the 5-Part Model.
[41] Refer to Appendix I for the Te Whare Tapa Wha diagram given to participants.

5.3.5 General Issues

Whilst not constituting adaptations the advisory group made the following less tangible general suggestions regarding the delivery of the protocol. They suggested that during the formulation phase, assessment of Māori client beliefs, assumptions and cognitions, be informed by an awareness of cultural perspectives that tend to differ between Māori and Pākehā. Members of the advisory group raised several dimensions along which they felt an awareness of Māori worldviews was essential to the development of an accurate and clinically useful cognitive formulation. The areas raised by the advisory committee are listed below accompanied by examples where appropriate:

5.3.5.1 Collectivism/Importance of Whānau

Example: A Māori client who places unusually high levels of importance on their relationship with a parent should not have this relationship immediately categorised as one of dependence without first considering that clients position on the 'collective-individual' continuum.

5.3.5.2 Spirituality

Example: The experience of hearing voices or visual hallucinations is a possible symptom of a number of mental disorders. In some cultural contexts such symptomatic phenomenon are highly valued. In Māori society the ability of 'matakite' or 'second-sight' is held in high regard and can involve visions and premonitions of future events (Smith, 2000) . It follows that a Māori client who reports having visions of a deceased relative, for example, should not have these experiences immediately pathologised without an awareness of cultural concepts such as 'matakite'.

5.3.5.3 Whakamā

Example: The concept of whakamā which was briefly discussed in Chapter 2 was raised by three members of the advisory group as a construct which they took into account in considering the clinical presentation of Māori

[42] Refer to Appendix J for examples of thought records (basic through to extended) given to participants

clients. For example, passivity or a lack of eye contact from a Māori client, may be a reaction of deference to a figure of perceived authority rather than being indicative of poor motivation or a reluctance to engage.

5.3.5.4 Cultural Responsivity

In raising these issues several of the advisory group expressed concern at the implementation of "excessive" culture as part of the treatment protocol. Some noted the inherent irony of utilising a manualised treatment protocol for a study that purports to be culturally responsive. Specifically, there was a concern that strict adherence to a particular cultural protocol would diminish the responsiveness of therapy to the individual needs of the client. These concerns align with Durie's (1995) commentary which describes the diverse cultural realities in which Māori live. Whilst the majority of academic discourse has focussed on the absence of culturally responsive care for Māori there are also risks inherent in presenting too much culture. An example given by Kingi (2005) was that routinely using Te Reo Māori when working with a Māori client in a mental health setting when that client has limited understanding of the Māori language may seem at best contrived, and at worst counter-therapeutic.

In this regard the recommendation that came from the advisory group was that the treatment manual remain flexible enough to allow for clinical and cultural discretion to be exercised and that treatment be applied with both clinical and cultural supervision. Cultural supervision would aim to ensure that therapy reflected individual degree of association with Māori cultural values.

5.3.5.5 Te Reo Māori

Finally the use of Māori terminology and phrases where possible and appropriate both in general discussion during sessions as well as in CBT homework forms was encouraged by the advisory committee (e.g., in activity schedules, thought records). This included amongst other things the translation of the 5-Part model into Māori alongside the English term as shown in Appendix J.

All of the adaptations outlined in section 5.3 were implemented into the 12-session treatment manual. The adaptations informed the session goals and agenda as well as the psycho-educational materials provided to participants and were refined based on feedback from cultural supervisors.

5.4 Summary

This chapter has outlined the adaptation of a CBT treatment manual for use with adult Māori clients with a diagnosis of depression. The manual development process was informed by an informal advisory process with seven clinical psychologists of Māori and non-Māori descent, consultation with local and international literature regarding best practice, as well as the primary researchers own experience.

This process yielded a series of adaptations that were categorised within the broad domains of whakawhanaungatanga (the domain of connectedness), te taha wairua (the domain of spirituality), te taha whānau (the domain of extended family), and whaikōrero (the domain of metaphor). Additionally a series of more general adaptations were implemented into the final 12-session treatment manual.

Chapter Six – Clinical Trial

6.1 Outline and Aims

This chapter will outline the tiers of consultation and overall methodology involved in trialling the treatment protocol that was developed for this study. It will outline the consultation process conducted prior to the beginning of the research and the design modifications that arose from this advice. It will then describe the methodological process in detail including the psychometric protocol and the various phases of treatment that participants received.

6.2 Initial Consultation

During the initial phases approaches were made to the Clinical Leaders and Team Leaders from the Māori Mental Health Services of both the Hutt Valley District Health Board (Te Oranga Hinengaro) and the Capital and Coast District Health Board (Te Whare Marie) to gauge their support for the proposed study and ascertain whether they would be willing to refer clients from their service to participate in the study. The initial response to the proposal was generally positive: feedback was provided and guidance was given by the service leaders as to further consultation that would be necessary prior to approval being granted by the DHB for participant recruitment to proceed. Whilst feedback varied between services both included recommendations that consultation occur with local runanga (The Tenths Trust, Te Ati Awa, Ngati Toa) as well as consultation with relevant Māori groups internal to the DHB.

The design of this study was revised at various stages in response to feedback received through this consultation. These changes included the decision to expand the inclusion criteria. Originally inclusion criteria had been ‘mild-moderate depression without co-morbid psychiatric features’. The feedback that emerged from the consultative process indicated that these criteria would be excessively restrictive given the tertiary nature of care provided at the DHB level. It was suggested that few if any current clients of either service would meet these criteria. The inclusion criteria were

therefore changed to include clients with a *primary* diagnosis of depression (mild-severe) and also open the study to clients with co-morbid psychiatric diagnoses such as anxiety disorders or substance-related disorders. This change in the inclusion criteria was consistent with literature that has criticised the restrictive inclusion criteria employed by many clinical trials. These restrictions raise questions regarding the practical validity of results given the typically complex nature of clinical populations (Westen et al., 2004). Although this change introduced additional confounds and increased variation inherent in the treatment population it was deemed by the groups consulted with, that it increased the applied relevance of the research.

6.3 Participant Population

Sixteen individuals of Māori descent participated in this study. The sample ranged in age from 19 to 57 and included 5 males and 11 females. At the time of their recruitment into the study depression levels of the sample ranged from the *mild* to *severe* ranges. However the one participant with a pre-treatment score in the *mild* range withdrew from the study after attending just two sessions. Four participants resided in the Kapiti area, five in the Porirua area and seven in the Wellington area. The majority of participants were existing clients of Te Whare Marie – Māori Mental Health Services (n=14), one was a former client of Te Whare Marie, whilst the other had not met public service criteria as their depressive features were within the mild-moderate range. A range of co-morbid factors were identified by their care team as present among the participants in this research. These included alcohol and substance abuse (n=7), anxiety disorders (n=6), personality disorders (n=3), and prior diagnoses of bipolar II disorder (n=2). However despite these complexities all of the participants had been given a primary diagnosis of a major depressive episode.

Table 1 presents demographic characteristics of all of the participants in this study. All of the participants except one had an awareness of their iwi affiliation. Nine of the 16 participants were receiving anti-depressant

Table 1

Participant Characteristics and Clinical Presentation at Assessment

Participant	Gender	Age	Iwi[1]	Depression Severity at Intake[2]	Comorbidity[3]	Anti-depressant Medication at Intake	Sessions Completed
S.01	M	57	Ngapuhi	Moderate-Severe	No	Yes	12
S.02	F	34	Ngati Toa	Severe	Yes	No	12
S.03	M	22	Ngati Porou	Severe	Yes	No	12
S.04	F	30	Ngati Kahungungu	Moderate-Severe	No	No	7
S.05	F	26	Ngai Tahu	Severe	No	Yes	12
S.06	F	32	Te Arawa	Severe	No	Yes	12
S.07	F	31	Ngati Porou	Severe	Yes	Yes	11
S.08	F	49	Tuwharetoa	Mild-Moderate	Yes	No	2
S.09	F	36	Te Ati Awa	Severe	Yes	No	10
S.10	F	57	Te Ati Awa	Moderate-Severe	No	Yes	12
S.11	F	44	Unknown[4]	Moderate-Severe	Yes	Yes	7
S.12	F	40	Ngati Porou	Severe	No	Yes	12
S.13	M	28	Ngati Raukawa	Moderate-Severe	Yes	No	10
S.14	F	29	Te Arawa	Moderate-Severe	No	No	7
S.15	M	19	Ngati Porou	Severe	No	Yes	9
S.16	M	56	Tainui	Severe	Yes	Yes	12

Note:
[1] *Primary iwi as identified by participant.*
[2] *As measured by the BDI-II.*
[3] *Comorbid clinical factors (e.g., anxiety disorders, substance related disorders, personality disorders).*
[4] *Client unaware of iwi affiliation.*

medication at the time of their participation in the study. The participants attended an average of 8.8/12 sessions however after removing S.08 who only attended two sessions this average increased to 9.2/12 sessions.

Data collection was a time consuming process as the recruitment of a sample size of 16 people that met study criteria within the geographical region of the study required significant effort. The staggered nature of recruitment meant that treatment was delivered over a considerable period of time. The first participant was recruited to the study and began treatment in January 2007 and the final participant completed their follow-up session in December 2008 equating to a data collection phase of almost two years. Including attendance at 6-month follow-up appointments, participants attended a collective total of 171 sessions, each approximately one-hour in length. A sample of this size indicated that the most appropriate approach to analysis would be a combination of careful interpretation of group results alongside in-depth case studies.

6.4. Psychometrics

6.4.1. Clinical Outcome Measures

6.4.1.1. Beck Depression Inventory – 2nd Edition (BDI-II)

The BDI-II is a 21-item self report measure with each answer scored on a scale ranging from 0 to 3. It has excellent face validity and is in wide clinical use in New Zealand (Patchett-Anderson, 1997). The cut-offs suggested by the authors to describe the severity of depression are: 0–13: minimal depression; 14–19: mild depression; 20–28: moderate depression; and 29–63: severe depression. The BDI-II has been shown to have a high one-week test–retest reliability (Pearson r =0.93), as well as high internal consistency (α=.91) (Beck, Steer, & Brown, 1996).

Numerous studies into the effectiveness of CBT for depression have used its predecessor the BDI, to monitor treatment progress (e.g., Gelman, Lopez, & Foster, 2005; Kohn et al., 2002; Laperriere et al., 2005; Okazaki & Tanaka-Matsumi, 2006). The BDI-II is a highly clinically valid assessment tool and is

used by healthcare professionals and researchers in a variety of clinical settings (Talburt & Ishak, 2002). The BDI-II has also been found to be sensitive to changes in depression over time (Sprinkle et al., 2002) and is designed to be able to be completed on multiple occasions, making it a highly suitable measure for tracking progress through treatment.

A study investigating the psychometric properties of the BDI-II when used with African-American suicide attempters has also given support to the cross-cultural use of the BDI-II. The authors found it to be a "reliable and valid measure of depressive symptoms" amongst this population reporting a Cronbach's alpha of 0.94 and moderate convergent validity (r=0.66) with the HRSD (Joe, Woolley, Brown, Ghahramanlou-Holloway, & Beck, 2008).

6.4.1.2. Attributional Style Questionnaire (ASQ)

The ASQ (Seligman, Abramson, Semmel, & von Baeyer, 1979) is a self-report instrument that examines respondents explanatory styles for a series of good and bad events across three causal dimensions: internal vs. external, stable vs. unstable, and global vs. specific causes. The ASQ requires the test-taker to write down the major cause of 12 events and then rate the cause along a 7-point continuum for each of the three dimensions mentioned above.

Despite modest internal consistency with Cronbachs alpha ranging from 0.56-0.76 (Tennen & Herzberger, 1987) the ASQ is perhaps the most well-known measure of the 'attributional style' construct used in research (Peterson, 1991) and a number of variations have been developed for a range of research purposes (Peterson & Vaidya, 2001). With its focus on the way that individuals perceive and interpret external events, attributional style is a construct of considerable interest to those who work from a cognitive behavioural orientation. The ASQ has been used in numerous CBT outcome studies as the measure of choice for attributional style (e.g., Barber & DeRubeis, 1989; Petersen et al., 2004; Proudfoot et al., 2004; Teasdale et al., 2001). Given its widespread use in cognitive behavioural research, it was considered an appropriate choice of psychometric for this study.

6.4.1.3. Automatic Thought Questionnaire (ATQ)

The Automatic Thought Questionnaire (ATQ) was developed by Hollon and Kendall (1980) and was designed to measure the frequency that automatic negative thoughts associated with depression occurred. The ATQ consists of 30-items comprising a series of negative self-statements that respondents indicate how frequently they experience. It has been constructed and validated using male and female undergraduates as subjects. Split-half reliability coefficients have been recorded at .97 and coefficient alphas have been found to be .96 and has also been found to show good criterion related validity in discriminating between depressed and non-depressed respondents (Hollon & Kendall, 1980).

Possible scores on the ATQ-30 range from 30 to 150. Hollon and Kendall (1980) report mean scores for depressed individuals on the ATQ-30 of 79.64 (SD = 22.29) and mean scores for non-depressed individuals of 48.57 (SD = 10.89).

The cognitive focus of the ATQ makes it a useful measure of the frequency of negative thinking among clients receiving CBT. Similar to the ASQ, the ATQ is widely used in CBT outcome research to measure the frequency of negative cognition (e.g., Allart-Van Dam, Hosman, Hoogduin, & Schaap, 2007; Griffiths, Christensen, Jorm, Evans, & Groves, 2004; Kaufman, Rohde, Seeley, Clarke, & Stice, 2005).

6.4.1.4. Hua Oranga

Hua Oranga (Kingi, 2002) is a mental health outcome measure designed specifically for use with Māori mental health consumers. The measure itself is consistent with Māori concepts of health and wellness and has been developed using an existing model, Te Whare Tapa Wha including the dimensions of wairua, whānau, hinengaro and tinana. Hua Oranga also seeks perspectives via three separate questionnaires, designed for the client, the clinician, and a designated whānau member. Hua Oranga is currently undergoing a process of psychometric validation. However, the measure has displayed good face validity as indicated by sector feedback

(T. Kingi, personal communication, November 23, 2005) and captures information on important areas of functioning that clinicians working with Māori are encouraged to examine (Gawith & Abrams, 2006).

Adaptations to the wording of individual items were made in consultation with the author of Hua Oranga. These adaptations were made to ensure that the wording allowed for pre- and post- administrations of the assessment tool as required by the design of the study.[43]

6.4.2 Measures of Cultural Identity

6.4.2.1 Multigroup Ethnic Identity Measure (MEIM)

The MEIM was developed by Phinney (1992) originally for use with adolescents to provide a general measure that could assess ethnic identity across diverse ethnic groups. It consists of two subscales. The 'Ethnic identity achievement' subscale (EI) consists of behaviors and attitudes related to exploration of one's identity, strength of affiliation with one's ethnic group involvement in customs reflective of ethnic identity. The second subscale entitled 'Other-group orientation' (OGO) focuses on one's attitudes and feelings about interactions with people of different ethnicities.

A review of several other studies reported satisfactory internal consistency for the MEIM with mean Cronbach's alpha of .86 for the EI subscale, and .69 for the OGO subscale (Ponterotto, Gretchen, Utsey, Stracuzzi, & Saya Jr, 2003). The MEIM has been used in the field of ethnic identity research and has been shown to have strong correlations with self-esteem, depression, anxiety, social connectedness, and loneliness (Lee & Yoo, 2004).

A feature of the MEIM is that it is deliberately worded in a relatively generic manner making it appropriate for administration to a diverse range of cultural groups. As this study is primarily interested in whether a participant evolves in respect to their Māori identity after participating in the treatment protocol,

[43] See Appendix K for the adapted client version of Hua Oranga used in this study.

minor revisions were made to the wording of the MEIM to ensure that participants were responding to items in relation to their Māori identity.

6.4.2.2 Cultural Identity Visual Analogue Scale (VAS)

Single item visual analogue scales (VAS) have been found to be reliable and responsive measures for use in clinical trials and are for instance commonly used in the field of pain research (de Boer et al., 2004). A single item VAS was used as part of this study as a second measure of Māori identity. Other measures of Māori cultural identity such as the Te Hoe Nuku Roa framework (Durie, 1995) has linked the construct to a respondents level of access to resources of cultural value (both tangible and intangible). The advantage of using a VAS as a measure of cultural identity is that it allows for a greater diversity of interpretation with regards to the important components that contribute to one's sense of Māori identity.

6.4.3 Measure of Client Satisfaction

6.4.3.1 Satisfaction with Therapy and Therapist Scale

The Satisfaction with Therapy and Therapist Scale (Oei & Shuttlewood, 1999) was designed to measure the major common factors considered by the literature to be integral to the success of CBT for depression. It consists of 12 questions pertaining to two key factors, 'client evaluation of therapist' (5 questions) and 'satisfaction with therapy' (7 questions). The author's report Cronbach's alpha of 0.91 and 0.80 respectively for the two factors. Concurrent validity was also demonstrated with the scale correlating significantly with 'coping ability' and 'progress in therapy'.

Although the absence of normative data for this measure limits the extent of analysis able to be conducted on the Satisfaction with Therapy and Therapist Scale its adequate reliability and validity, and the specific focus on factors relevant to the success of CBT, made it an appropriate choice as the measure of client satisfaction. Additionally, participants were given the opportunity to respond to an open-ended question related to their general impressions of the therapy and the adapted cultural content.

6.5 Procedure

6.5.1 Therapist

The sole therapist in this study was the researcher, a male 'Senior Clinical Psychologist' of Māori descent with iwi affiliations to Te Arawa (Ngati Whakaue), Ngati Wai (Patu Harakeke), and Kai Tahu (Kati Waewae). At the time that fieldwork was being undertaken the researcher had seven years clinical experience in both mainstream and specialist Māori mental health clinical settings. Throughout the period during which the adapted CBT protocol was being delivered to participants clinical supervision was provided by an experienced 'Consultant Clinical Psychologist' of Māori descent and cultural consultation was readily accessible through the kaumātua and clinical staff of Te Whare Marie, the mental health service through which participant recruitment took place.

6.5.2 Study Settings

This study took place across three different locations in Kapiti, Porirua, and the central Wellington areas. Wellington-based participants attended the Massey University Psychology Clinic in Mt Cook, Wellington, participants based in the Kapiti area were seen at a room set aside for Te Whare Marie at the Capital and Coast DHB's Community Mental Health base in Paraparaumu. Finally, Porirua-based participants.were seen at the offices of Te Whare Marie who have a marae-based clinical setting on the Kenepuru Hospital Campus in Porirua.

6.5.3 Recruitment

Clinical staff (Psychiatrists and Care Manager's) from Te Whare Marie were oriented to the study. Where clinical staff had clients deemed appropriate for referral to the study, these clients were given an Information Sheet and Consent Form to read and discuss with their whānau. On all occasions the initial approach to potential participants was made through the case manager who facilitated the early stages of engagement with potential participants.

Because of the participant recruitment methods employed all of the participants were either receiving or had recently received treatment from Māori Mental Health services in the Wellington area. To be eligible for this study individuals had to self identify as Māori, be 18 years of age or older, and experience symptoms of depression as their *primary* presenting issue. A specific exclusion criteria was a previous history of having received CBT. It was originally intended that this study would exclude clients who were severely depressed as well as clients with more complex diagnoses (e.g., dual diagnosis). However it was subsequently deemed that these criteria were excessively restrictive and would potentially exclude *all* recipients of community mental health service from eligibility for the study. Additionally, one of the most common criticisms of using randomly controlled trials to identify empirically supported therapies has been the overly rigorous nature of participant screening. It has been suggested that many of these studies have little relevance to the practical reality of clinical practice due to the strict criteria for inclusion (e.g., Westen et al., 2004, 2005). Therefore, these other exclusions were dropped from the study.

6.5.4 Informed Consent

Potential participants were given Information Sheets and Informed Consent forms by their Community Mental Health Care Managers (see Appendix L for Information Sheets and Consent Forms). The majority of those participants (n=13) who agreed to participate in the study returned their consent forms to their Care Managers who then notified the researcher of participant contact details. The remainder of participants (n=3) contacted the researcher directly to arrange their first appointment.

6.5.5 Baseline Phase

The baseline phase consisted of three assessment points prior to the beginning of treatment the goal of which was the establishment of a stable baseline. After providing informed consent participants were given an initial appointment no less than three weeks and no more than four weeks from the time of initial contact. During the baseline phase participants received treatment as usual (TAU) which typically included regular follow-up from

their community mental health team (without CBT) and anti-depressant medication where this formed part of the clients treatment plan as well as completing the relevant psychometrics. A longer baseline period (i.e., 8-weeks) was initially planned, however the ethics committee raised concerns regarding an extended waitlist for participants, many with severe depressive symptoms.

With the exception of the Satisfaction with Therapy and Therapist Scale all of the psychometrics were administered immediately prior to the first assessment session. In order to establish a baseline level of depressive symptomatology the BDI-II was completed on three occasions during the period of no less than three weeks leading up to the first appointment.

Difficulties became apparent with two of the selected psychometrics. Firstly, feedback from three out of the first five participants in the study regarding the Attributional Style Questionnaire (ASQ) resulted in the administration of this psychometric being ceased. Participants reported considerable difficulty understanding and completing the ASQ and tended to either miss out items or respond in an automated fashion indicative of limited understanding of the questions. Secondly, seven participants were either unable or unwilling to approach a whānau member to complete the relative's version of the Hua Oranga measure.

During the waitlist period participants did not receive any kind of psychotherapeutic intervention. This baseline assessment period represented a no-treatment control phase. The three baseline assessment points used for this study are considered to be the minimum when conducting single case study analysis (Chambless & Hollon, 1998).

6.5.6 Treatment Phase

The adapted treatment programme consisted of five progressive phases as shown in Figure 3. It is important to note that these phases were not mutually exclusive and did not necessarily occur in a linear progression. For example, the process of whakawhanaungatanga, was not restricted to the

early sessions but was a process that evolved throughout the 12-sessions of therapy.

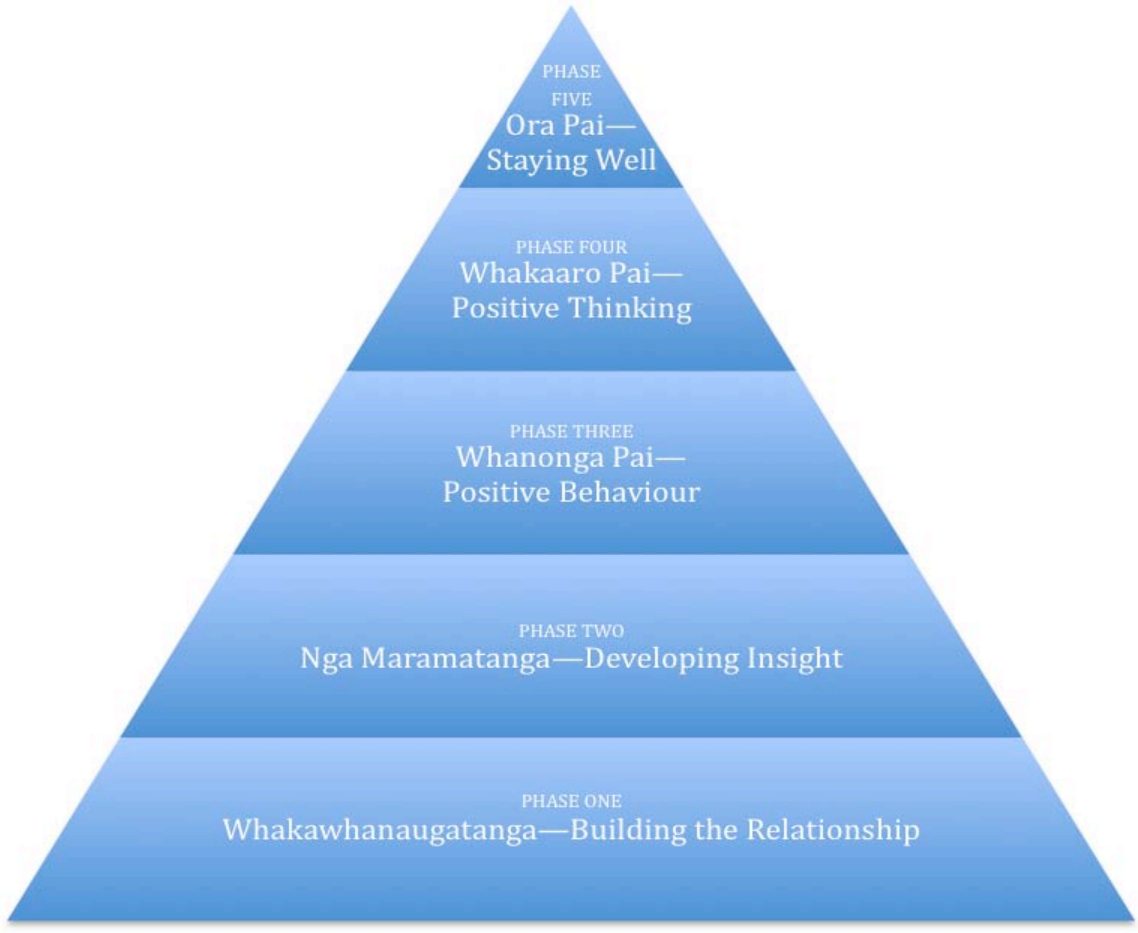

Figure 3. Diagram illustrating the phases of treatment involved in the culturally adapted treatment manual.[44]

The treatment programme was designed in this manner to allow a degree of flexibility and clinical judgement to guide administration of the treatment. In some cases participants mastered skills associated with a given phase relatively quickly to the next stage. In such circumstances participants were able to progress to the next phase more quickly. Conversely, when participants had difficulty mastering the techniques associated with a given phase, more time was spent perfecting these skills rather than progressing immediately to the next phase.

[44] The use of a triangle to depict the phases of treatment reflects the progressive nature of treatment whereby each phase builds on foundational skills developed in prior phases.

As a consequence, the length of time spent in treatment varied. The maximum length of time spent in the treatment phase was 27 weeks by a participant who attended twelve sessions. Among those who were designated 'treatment completers' the shortest period of time spent in treatment was six weeks by a participant who attended seven sessions.

The BDI-II was the only psychometric instrument used to assess outcome and client progress on a session-by-session basis. It was completed prior to the beginning of each session that participants attended and was completed a total of 12-times during the course of the treatment phase for those participants who attended all sessions.

6.5.6.1 Phase One: Whakawhanaungatanga: Building the Relationship

This phase involved building rapport and developing a positive therapeutic alliance with the client via a range of techniques as covered in the previous chapter. This included therapist self-disclosure, exploration of whakapapa, the establishment of connections and engagement with relevant whānau. Additionally this phase involved an orientation to the therapy process and to the models relevant to the developed treatment protocol.

6.5.6.2 Phase Two: Nga Maramatanga: Building Insights

This phase involved the collaborative development of a cognitive conceptualisation regarding the client's difficulties. This utilised the adapted framework of a wharenui (see Appendix H). This phase also involved the provision of psycho-educational material pertaining to CBT and depression and an orientation to key CBT models of practice such as the 5-Part Model.

6.5.6.3 Phase Three: Whanonga Pai: Increasing Positive Behaviour

Whanonga Pai involved a range of primarily behavioural strategies designed to promote positive behaviour. This phase included the use of an adapted activity schedule (see Appendix M) to monitor and then increase clients participation in activities that promoted a sense of enjoyment and/or achievement. During this phase clients began the process of thought recording using an adapted version of the 5-Part model (see Appendix J, Figure 1). During this phase review of thought records focussed on how

behavioural adaptations could result in changes to different elements of the 5-Part Model.

6.5.6.4 Phase Four: Whakaaro Pai: Increasing Positive Thinking

This phase initially focussed on increasing the clients' awareness of their cognitive process, and then employed a series of progressive strategies to assist the client in challenging negative thinking such as examining evidence for and against negative thoughts, and developing alternative thoughts.

6.5.6.5 Phase Five: Ora Pai: Staying Well

This phase involved activities typical of the relapse prevention process inherent in CBT. This included a review of the insights developed through the therapy process and their linkage to the cognitive conceptualisation. Additionally hypothetical management of future stressful situations formed a part of this phase.

6.5.7 Post-Treatment Assessment

Immediately post-treatment, participants completed all of the psychometrics completed prior to the beginning of treatment as well as the Satisfaction with Therapy and Therapist Scale. Of the nine participants who had a whānau member complete the relative's version of Hua Oranga only five returned the questionnaire completed by the same family member.

Participants were assessed and interviewed again six months following the completion of treatment to re-administer two key measures of clinical outcome (BDI-II and ATQ). The collection of follow-up data six months following treatment is common when studying depression and has also been used by a number of researchers in the CBT for depression area (e.g., Interian et al., 2008; Vostanis, Feehan, Grattan, & Bickerton, 1996; Wells et al., 2000). As cultural identity is considered a more static construct the two measures assessing this domain were not readministered at the 6-month follow-up point.

6.6. Summary

This chapter has described the methodological process involved in trialling the culturally adapted CBT treatment protocol developed as part of this study. A series of psychometrics were selected for use most of which were administered prior to treatment and following the completion of treatment. Following an initial period of consultation 16 participants were recruited to the study.

Participants underwent an initial pre-treatment period of 3-4 weeks during which three assessment points were taken in the interests of establishing a stable baseline. Prior to the first session participants completed a series of psychometric measures of clinical and cultural relevance. The treatment consisted of 12 sessions that consisted of five progressive phases. Post treatment protocol consisted of psychometric reassessment immediately following treatment, client evaluation of therapy and therapist, and then a six month follow-up assessment.

Chapter 7 – Single Case Analysis

7.1. Outline and Aims

This section analyses the results of this study from a single case study perspective. Rather than report on the individual results of all 16 participants this chapter categorises participants into four groups based on the net reduction in mean depressive symptomatology. This will allow discussion regarding common themes among those who did best and those for whom the adapted CBT was less useful. The BDI-II was used as the measure of net change in depressive symptoms and was measured by comparing the net difference between baseline (pre-treatment) and post-treatment mean BDI-II scores.

7.2. Grouping of cases

Figure 4 shows the percentage reduction in depressive symptoms for the 15 participants who attended six or more CBT sessions. A 16th subject S.08 attended just two sessions prior to moving out of the Wellington area and therefore her data was not included in this analysis.

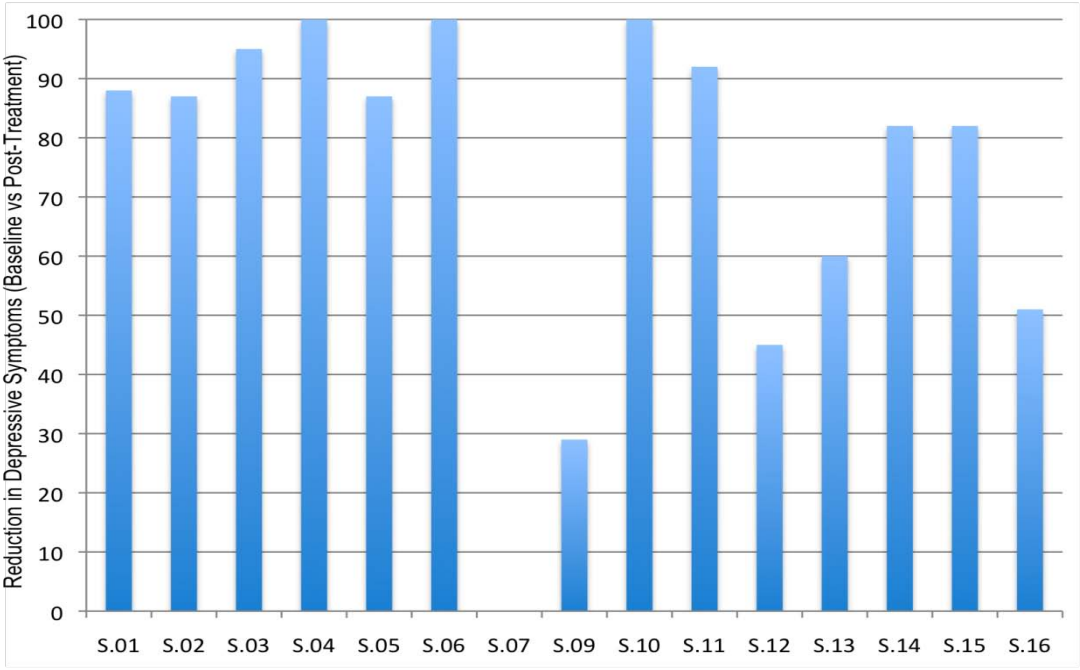

Figure 4. Bar graph displaying the reduction in BDI-II scores for each participant comparing baseline and post-treatment

Visual inspection of Figure 4 shows two convenient groupings consisting of those who experienced >80% reduction in BDI-II scores (n=10) and those who experienced ≤60% reduction in BDI-II scores (n=5). However in order to conduct more detailed analysis of individual cases four narrower categories will be examined consisting of those who experienced 90-100% reduction in BDI-II scores (n=5), those who experienced 80-90% reduction (n=5), those who experienced 40-60% reduction (n=3), and those who experienced less than 30% reduction (n=2).

7.3. Group One: 90-100% reduction in depression

The first group of case study results presented experienced 90-100% reduction in mean depressive symptoms. This group of five subjects consisted of one male and four females and ranged in age from 22 to 57. Three of the participants attended all 12 sessions, while the other two each attended 7 sessions. Follow-up data was available for four of the five participants; S.11 left the Wellington area prior to the completion of sessions. Severity of depressive symptoms during the baseline phase varied between subjects with three displaying clinical symptoms in the severe range and two with symptoms in the moderate range. Two subjects had comorbid clinical issues that included substance abuse (cannabis) and a history of bipolar II disorder. Just one of the subjects (S.03) chose to attend sessions with a whānau member and this only occurred for the first session.

Table 2

Group One - Participant Characteristics

Subject	Age	Gender	Depression Severity at Intake	Sessions attended	Comorbid factors present	Whānau Involvement (one or more sessions)	Meds
S.03	22	Male	Severe	12	Yes	Yes	No
S.04	30	Female	Moderate	7	No	No	No
S.06	32	Female	Severe	12	No	No	Yes
S.10	57	Female	Moderate	12	No	No	Yes
S.11	44	Female	Severe	7	Yes	No	Yes

7.3.1. Individual Results: BDI-II

Figure 5 shows the progress of the five subjects who experienced either complete or near complete remission of their depressive symptoms. The graphs show that in four of the five cases that a relatively stable baseline was established. Whilst responses to treatment varied, for the most part this group displayed a steady decrease in depressive symptoms over the course of the treatment phase. That S.06 experienced an acute increase in depressive symptoms following session 10 reflects that depressive symptoms can display variation in response to factors internal to the treatment process as well as external factors such as environmental stressors.

7.3.1.1. Baseline

It is desirable in single case study research that a stable baseline be achieved prior to the implementation of the proposed intervention (Barlow & Herson, 1984). Establishing stability requires three or more baseline assessment points. All five group one subjects displayed below 50% variation, the maximum variation recommended by Barlow and Herson (1984) when conducting single case study analysis. S.06 displayed the highest percentage variance during the baseline phase (44.4%).

A closer examination of the baseline data points shows a marked downward trend in S.06's depressive symptomatology during the baseline phase. Whilst there are a number of possible explanations for this phenomenon it is perhaps noteworthy that, with the exception of S.04, all of the subjects in this group displayed a downward trend in depressive symptoms in the period leading up to their first appointment for CBT. This would support the possibility that these subjects experienced increased hope and perhaps optimism in anticipating the pending onset of their CBT sessions.

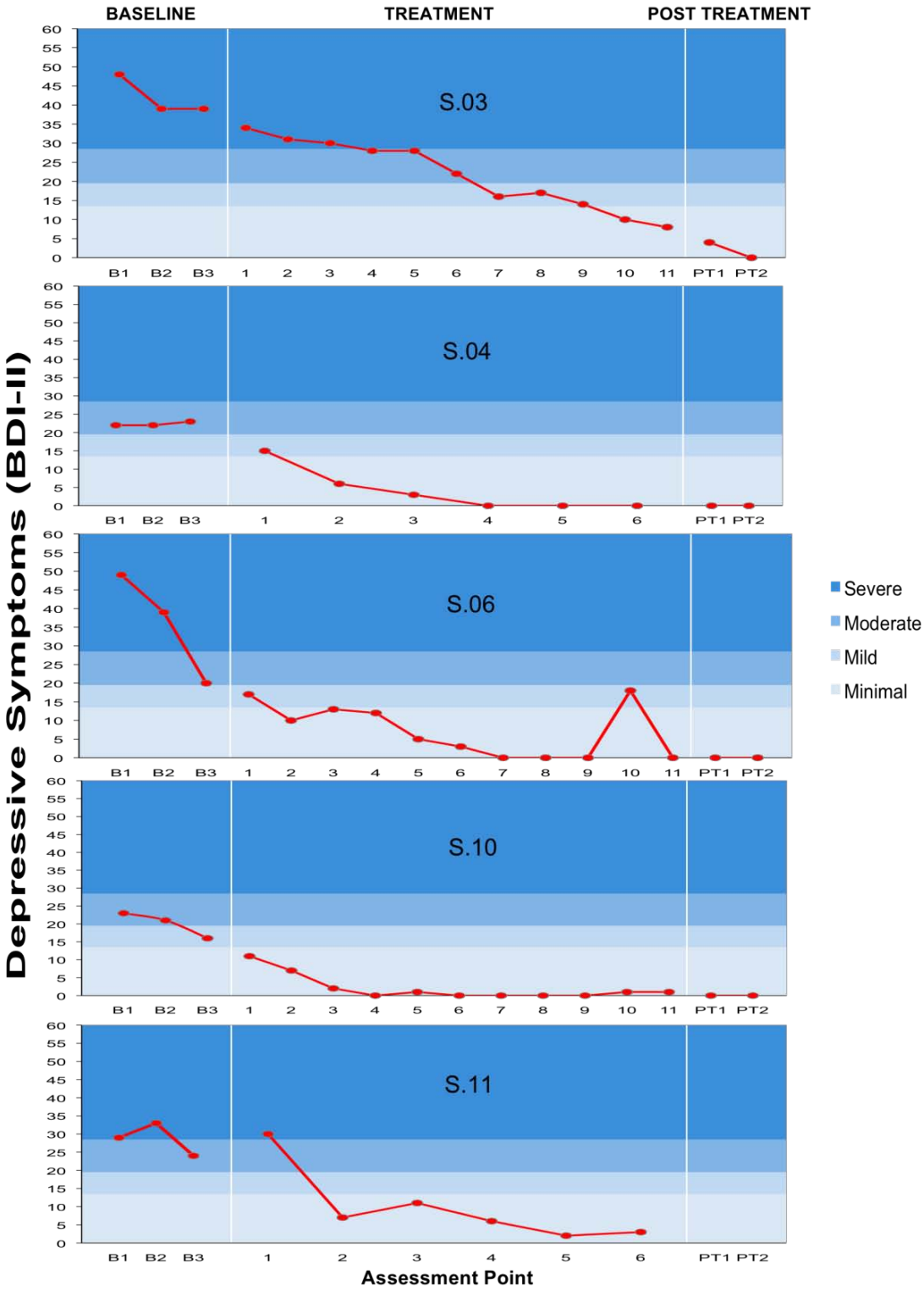

Figure 5. Figure showing depressive symptom change across assessment points for participants who experienced 90-100% reduction in depressive symptoms

7.3.1.2. Treatment

Visual inspection of Figure 5 shows a relatively consistent reduction in depressive symptomatology for all subjects categorised in Group One with

all displaying visible improvement throughout the treatment phase. BDI-II scores reduced systematically for four of the five participants. The most noticeable variation occurred for S.06 who experienced an acute increase in depressive symptomatology between the 9th and 10th therapy session. It is likely that this increase in depressive symptomatology can be explained by individual circumstances rather than the therapy itself. Specifically between sessions 9 and 10, S.06 experienced an increase in individual stress after returning to work following a period of extended parental leave. Additionally, there were also a range of domestic stressors associated with a particular family member. This exacerbation of symptoms was managed in session through a process of thought record review and re-emphasising a range of cognitive behavioural principles, which was followed by a rapid reduction in depressive symptoms at the next session.

7.3.1.3. Post-Treatment

Post-treatment data was available for four of the five subjects in this group. Depressive symptomatology remained well within the minimal range throughout the baseline phase and at six-month follow-up for all of these participants. Additionally, the four who participated in the follow-up phase scored zero on the BDI-II at six-month follow-up indicating that gains made during the treatment phase were maintained over the subsequent six months.

7.3.2. Individual Results: ATQ-30

The management of negative automatic thoughts is a fundamental goal of CBT and the ATQ-30 assesses the frequency of a series of negative cognitions associated with depression. Figure 6 shows Group One scores on the ATQ-30, indicating the extent to which a series of common negative thoughts impacted upon the five subjects who experienced the largest percentage reduction in depressive symptomatology. Post-treatment data was not collected for S.11. The remaining four subjects experienced a marked reduction in negative cognitions from baseline to post treatment and their scores remained relatively stable over the two post-treatment points.

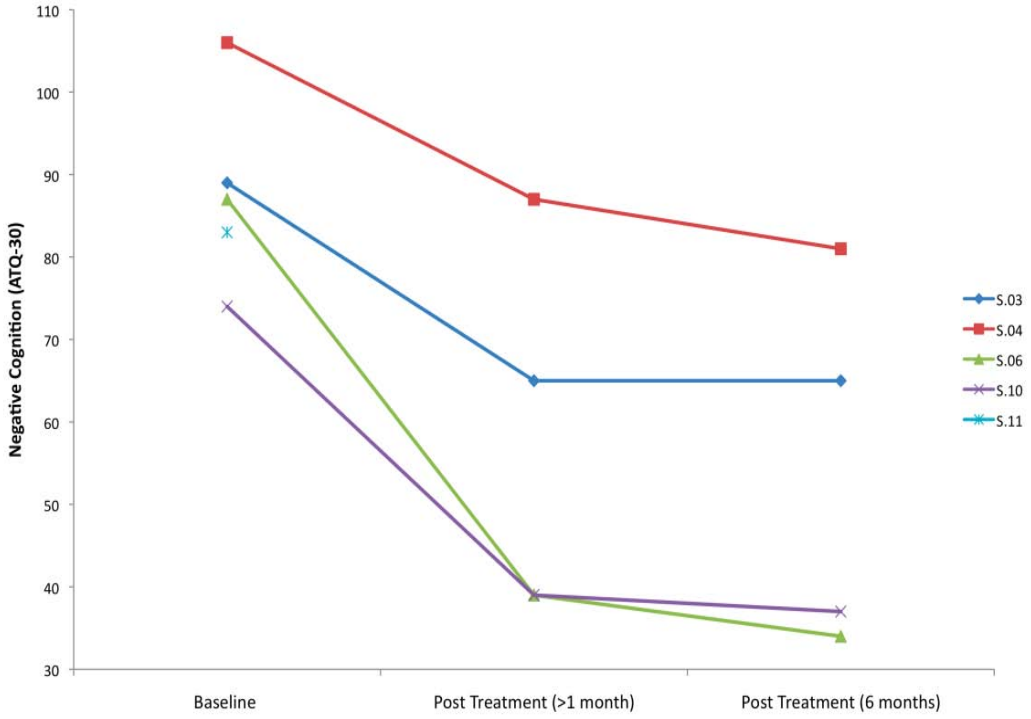

Figure 6. Line graph showing changes in scores on the ATQ-30 for participants who experienced 90-100% reduction in depressive symptoms.

7.3.3. Individual Results: Hua Oranga

Figure 7 depicts the pre and post-treatment scores of the four Group One members who completed post-treatment assessment across the four domains assessed by Hua Oranga using a radar diagram. In these diagrams, each spoke plots the functioning for one of the four dimensions of the measure. The area created by the resulting shape thus gives a graphical representation of the degree of total functioning across these domains. In this case the larger area indicates improved functioning in overall wellness.

As can be seen in the radar diagrams presented in Figure 7, the graphs for S.04, S.06, and S.10 indicate marked improvements across all four dimensions of well-being. The graph for S.03 indicates a smaller increase in well-being with the dimension of *wairua* decreasing in comparison to pre-treatment scores.

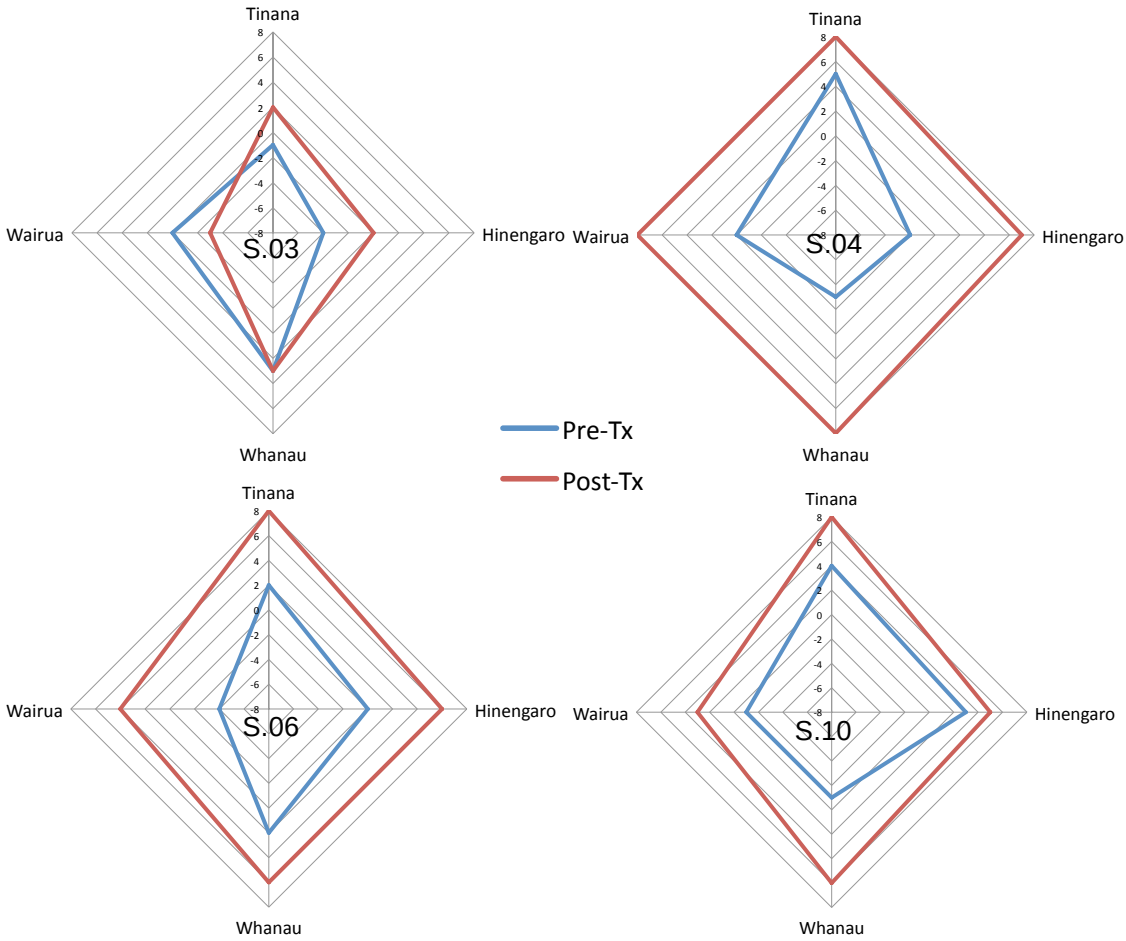

Figure 7. Radar diagram showing pre-treatment and post-treatment scores on the four dimensions of Hua Oranga for participants who experienced 90-100% reduction in depressive symptoms

7.4. Group Two: 80-90% reduction in depression

The second group experienced 80-90% reduction in depression and included two males and three females with ages ranging from 20 to 57. Three of the group had depression in the severe range, one in the moderate range and one in the mild range. A considerably larger portion of this group involved whānau in their treatment programme with four attending scheduled appointments with either friends or family. Two of the subjects experienced comorbid clinical issues, which included diagnoses of Borderline Personality disorder and Generalised Anxiety Disorder. Three participants attended all 12 sessions, whilst S.14 and S.15 attended 7 and 9 sessions respectively. Of the participants in this group three were on additional psychiatric

medication related to their depression. All five of these subjects participated in post-treatment assessment.

Table 3

Group Two - Participant Characteristics

Subject	Age	Gender	Depression Severity at Intake	Sessions attended	Comorbid factors present	Whānau Involvement (one or more sessions)	Meds
S.01	57	Male	Moderate	12	No	No	No
S.02	34	Female	Severe	12	Yes	Yes	No
S.05	26	Female	Severe	12	Yes	Yes	Yes
S.14	29	Female	Mild	7	No	Yes	Yes
S.15	20	Male	Severe	9	No	Yes	Yes

7.4.1. Individual Results: BDI-II

Figure 8 displays the BDI-II progression for five subjects who experienced considerable, but not full remission of depressive symptomatology following CBT. In comparison to Figure 7 the graphs illustrate a more variable progression to improved health, particularly in the cases of S.01, S.02 and S.05 all of whom fluctuated more noticeably over the course of therapy sessions.

7.4.1.1. Baseline

This group exhibited greater variation through the baseline phase than was the case for Group One. Two subjects in particular displayed higher levels of variability than the others with baseline phase scores ranging from *minimal* to *moderate* in one case (S.01), and *mild* to *severe* in another case (S.15). Despite this, through the baseline phase all cases remained well below the acceptable level of variation of 50% for single case research as recommended by Barlow and Hersen (1984).

7.4.1.2. Treatment

This session-by-session progress of this cohort varied quite significantly throughout the treatment phase. S.14 and S.15 made quite steady progress throughout the treatment phase with depressive symptoms declining steadily

throughout. Additionally, S.01 experienced a relatively uniform reduction in depressive symptoms, with the exception of one assessment point at which time this participant experienced an acute escalation of depressive symptoms. This escalation occurred as a consequence of an argument and breakdown in the participant's relationship with his partner. The figure shows that the escalated symptoms quickly reduced following session 8 and stayed within the minimal range for the remainder of the treatment.

The other two subjects in this group varied more noticeably through the treatment phase. In contrast to the other three subjects in this cohort, both these participants experienced depressive symptoms in the severe range at each baseline assessment point. Up to session 9, the scores of S.02 primarily remained within the severe or upper moderate range; however, following session 10 her scores reduced sharply to the lower portion of the minimal range. Once again the sudden change in depressive symptoms for S.02 was mediated by external factors, namely the restoration of a relationship that had previously broken down. While indentifying this as an external factor it should be noted that the client cited skills learnt through the CBT treatment program as improving her capacity to take steps toward restoring this relationship.

The scores of S.05 also showed fluctuating depressive symptoms throughout the treatment phase with a slight downward trend. However the formal treatment phase ended with an escalation in depressive symptoms at the final treatment session. At this point, due to concerns held by the therapist and Te Whare Marie regarding the welfare of S.05 the subject was assessed and subsequently admitted to inpatient care. During the course of this admission a range of physical investigations identified a biological factor contributing to the participant's depressive illness. This was duly

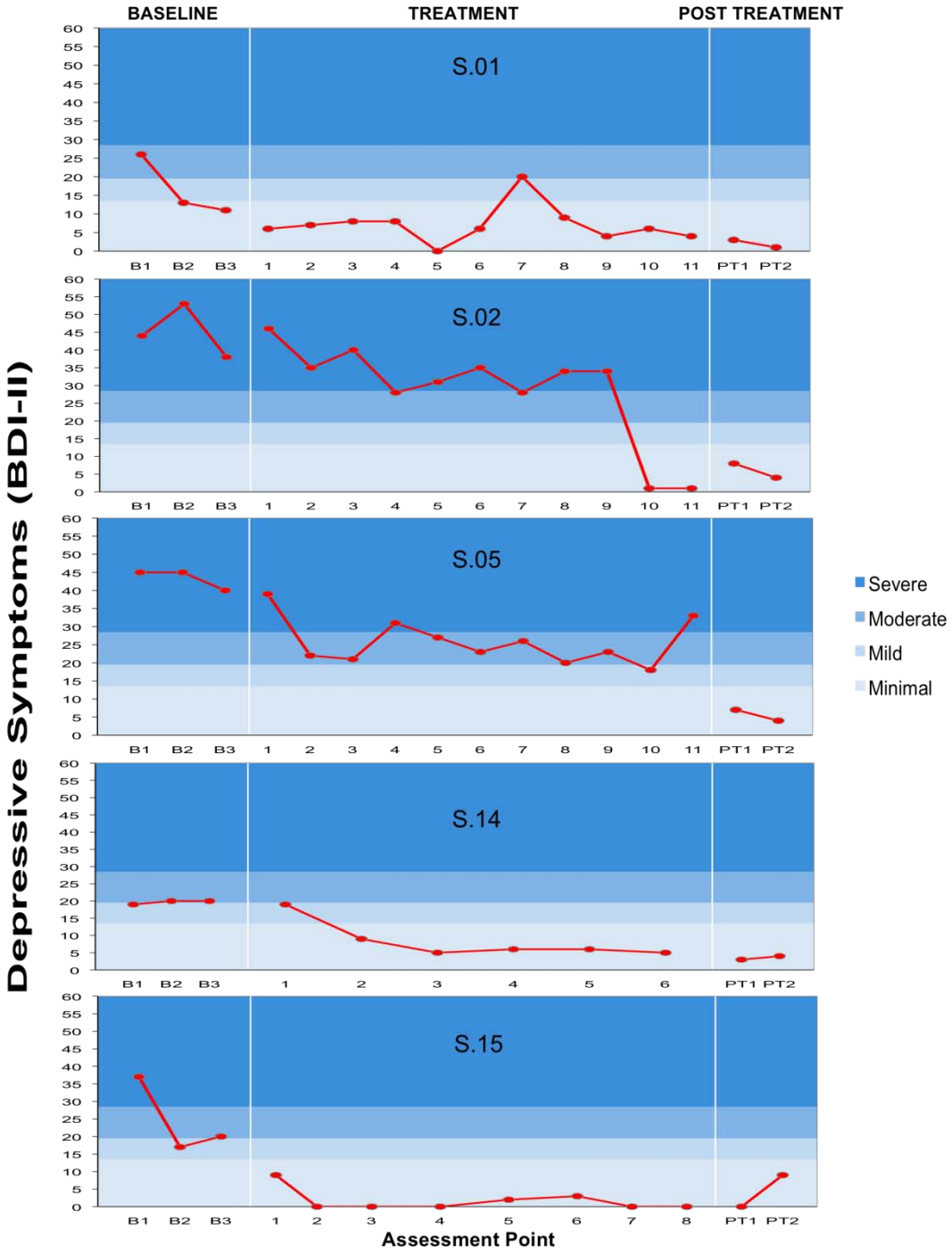

Figure 8. Figure showing depressive symptom change across assessment points for participants who experienced 80-90% reduction in depressive symptoms

addressed and was followed by a rapid reduction in S.05's depressive symptoms as is reflected by the post-treatment assessment taken two weeks after the final session (PT1).

7.4.1.3. Post-Treatment

Review of post-treatment BDI-II scores shows that each of the subjects remained within the minimal range of depression at both post-treatment assessment points. Despite remaining within the minimal range, it should be noted that S.15 had a small but noticeable increase in depressive symptoms at the time of the 6-month follow-up assessment. This could be equated with the fact that at that time, S.15 had recently been laid off from his job and was having difficulty finding new work.

7.4.2. Individual Results: ATQ-30

Figure 9 below shows that with the exception of S.01, all participants experienced a decrease in the severity of their negative cognitions between baseline and post-treatment. Furthermore *all* participants experienced decreased negative cognitions in comparing 6-month follow-up data with baseline data.

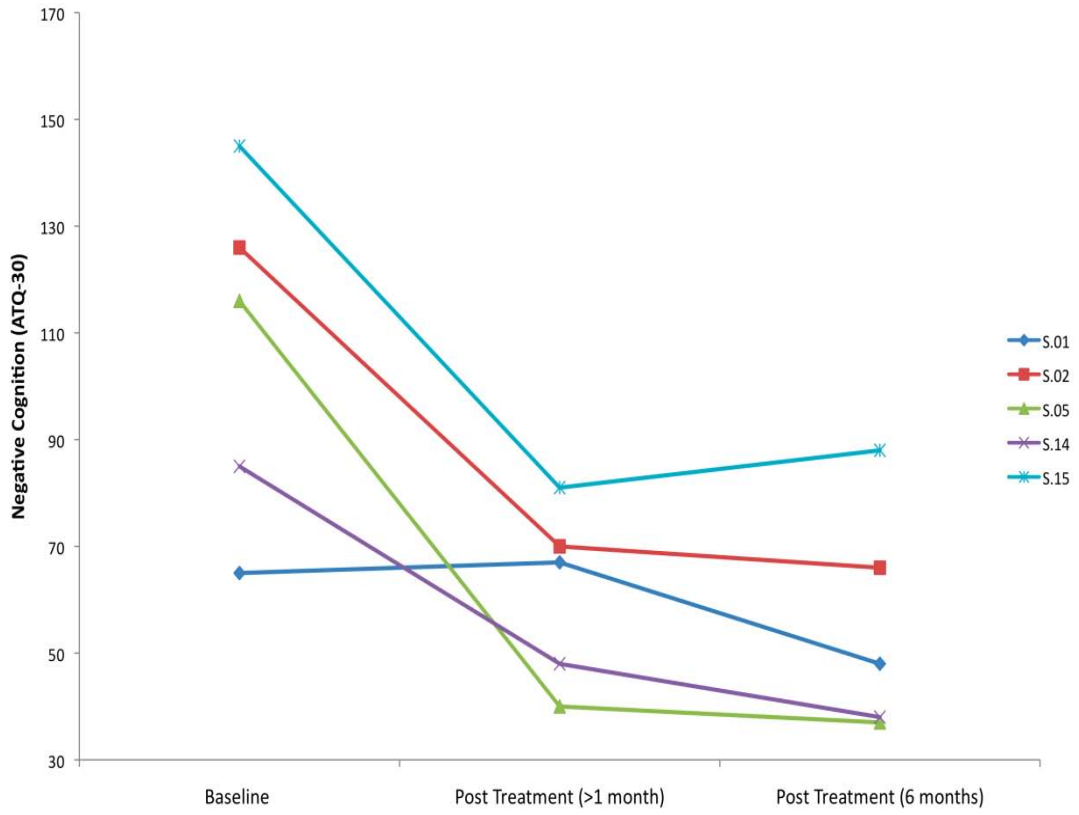

Figure 9. Line graph showing changes in scores on the ATQ-30 for participants who experienced 80-90% reduction in mean depressive symptoms

All but one of the subjects either maintained or displayed further improvement between 1-month and 6-month post treatment. S.15 showed a slight increase in negative cognition in between the two post-treatment assessment points which aligns with the BDI-II data which showed an increase in depressive symptoms for this subject in the same period.

7.4.3. Individual Results: Hua Oranga

The vector graphs for Group Two are presented in Figure 10. They show that in three of the four cases (S.01, S.02, and S.05) well being improved across the four dimensions of Hua Oranga. On the other hand the graph for S.15 shows that in this case, improvement occurred in the dimensions of *hinengaro* and *whānau* however the dimensions of *wairua* and *tinana* had deteriorated at post treatment.

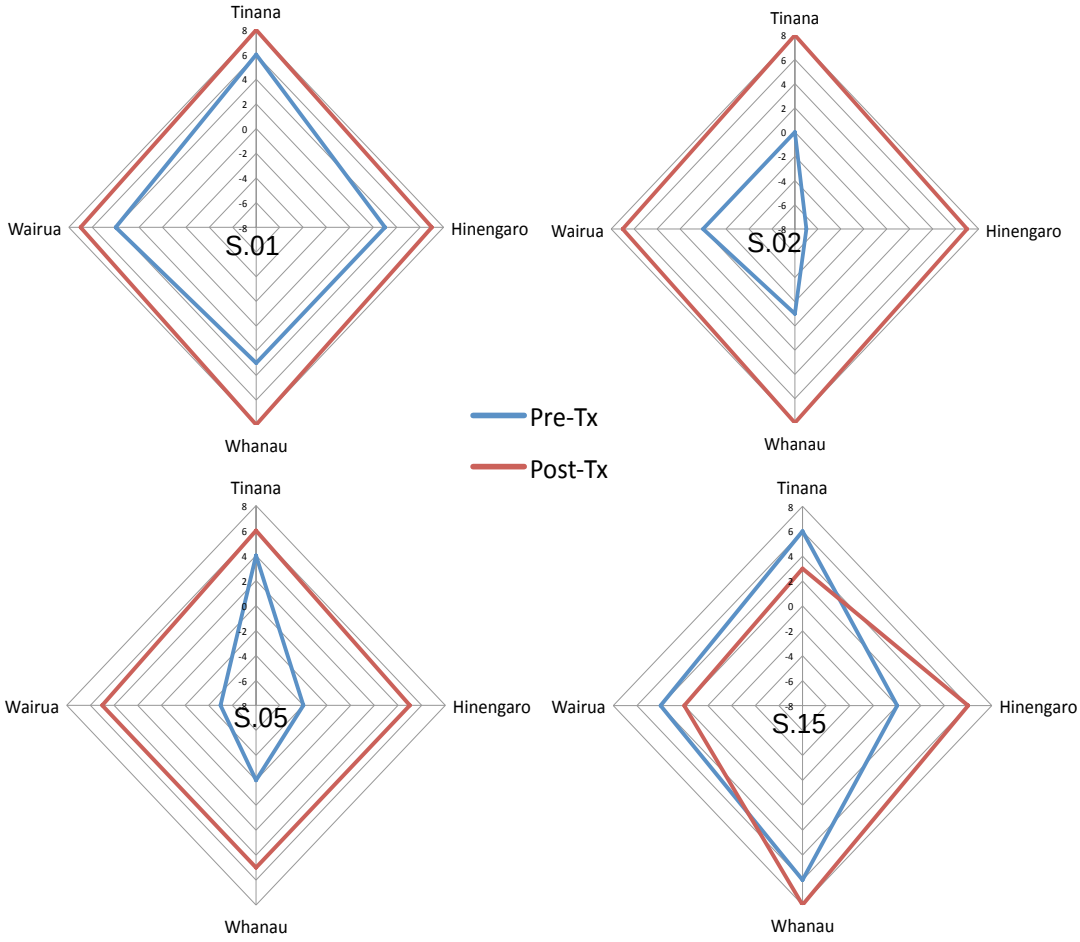

Figure 10. Radar diagram showing pre-treatment and post-treatment scores on the four dimensions of Hua Oranga for participants who experienced 80-90% reduction in mean depressive symptoms

7.5. Group Three – 40-60% reduction in depression

The single case data examined thus far for groups 1 and 2 is for those who experienced 80-100% reduction in depressive symptoms suggesting that relatively for these groups, CBT was a successful intervention. Group 3 however experienced more modest reductions in their depressive symptoms ranging from 45% (S.12) to 60% (S.13). This group consisted of 2 males and 1 female ranging in age from 28 to 56. All presented with symptoms in the severe range during the baseline phase and each of them experienced additional comorbid clinical factors including PTSD, substance abuse, and borderline personality traits. All completed a large portion of the sessions (≥10) and each was available for follow-up assessment.

Table 4.

Group Three – Participant Characteristics

Subject	Age	Gender	Depression Severity at Intake	Sessions attended	Comorbid factors present	Whānau Involvement (one or more sessions)	Meds
S.12	40	Female	Severe	12	Yes	No	Yes
S.13	28	Male	Severe	10	Yes	No	No
S.16	56	Male	Severe	12	Yes	No	Yes

7.5.1. Individual Results: BDI-II

Figure 11 displays the BDI-II progression for these three subjects who experienced moderate clinical improvements following CBT. The graphs display relatively stable progress with less of the fluctuations observed in the previous group. Of this group S.16 displayed greater variability in depressive symptomatology (despite the fact that their baseline readings were the most stable of this group). These higher levels of variability were possibly associated with comorbid factors for this individual that included alcohol abuse and borderline personality traits.

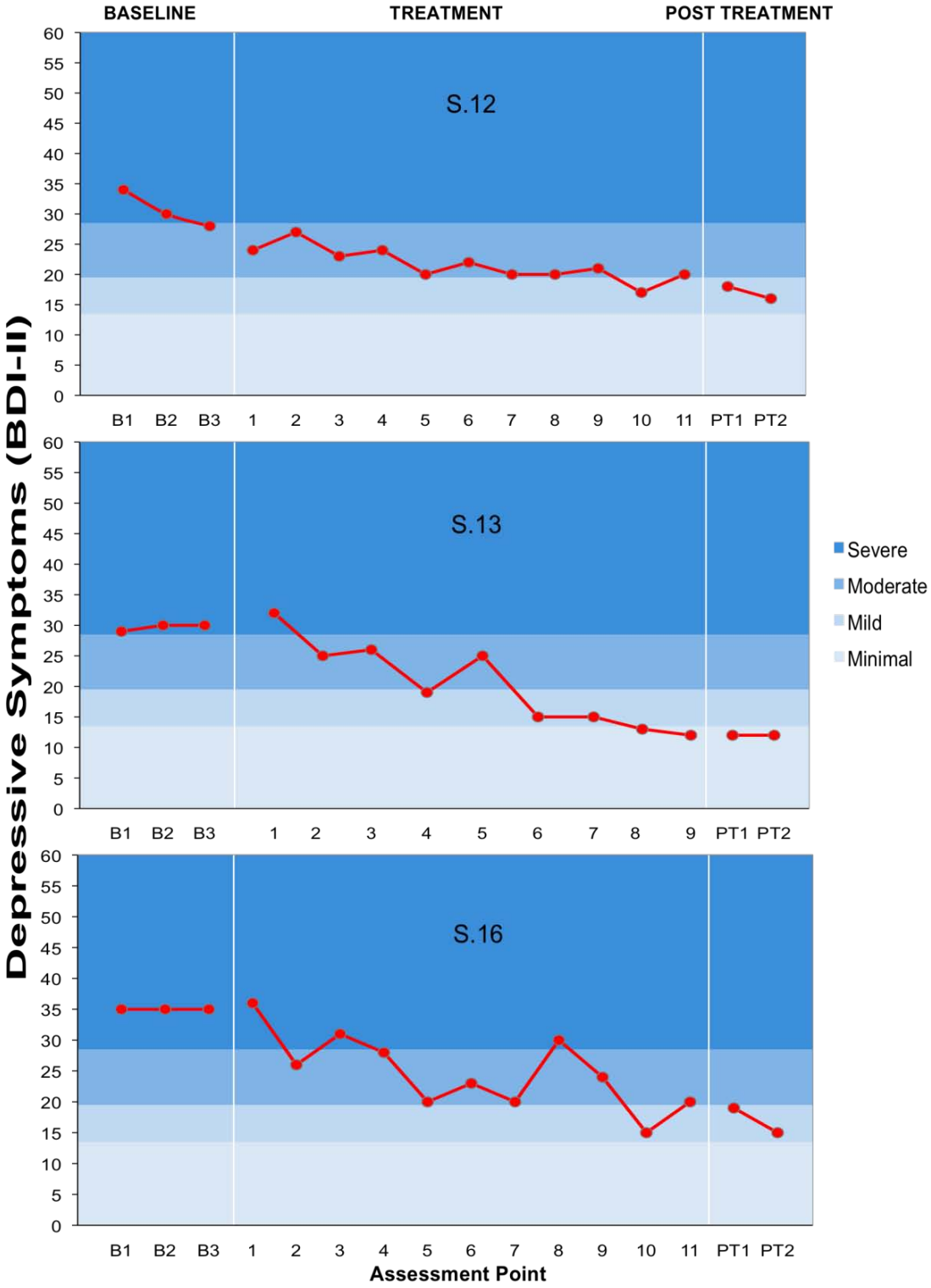

Figure 11. Figure showing depressive symptom change across assessment points for participants who experienced 40-60% reduction in depressive symptoms

7.5.1.1. Baseline

With the exception of one data point (S.12 – B.3) baseline scores for this group were all in the severe range. They remained relatively steady and well within the recommended levels of variation for the establishment of a stable baseline.

7.5.1.2. Treatment

S.12 and S.13 experienced a gradual decline in depressive symptomatology throughout the course of therapy whilst S.16, as noted above, experienced greater fluctuations throughout the treatment phase. In the case of S.16 these fluctuations tended to be mediated by the somewhat chaotic environmental factors that impacted on him.

7.5.1.3. Post-Treatment

Post-treatment BDI-II scores for all of this group were in the mild (S.12 and S.16) and minimal (S.13) ranges indicating that despite the more modest observed improvements, all of this group experienced reduction in depressive symptoms from severe range to either minimal or mild. Post-treatment scores remained stable for each of these subjects.

7.5.2. Individual Results: ATQ-30

Consistent with their less substantial reduction in depressive symptomatology, these three participants experienced more modest reductions in negative cognitions as shown in Figure 12 below. All three experienced decreased negative cognitions from baseline to post-treatment (1 month). S.12 experienced a further reduction in negative cognitions from 1-month to 6-month post-treatment while S.13 and S.16 both showed a small elevation in negative cognitions over this same period.

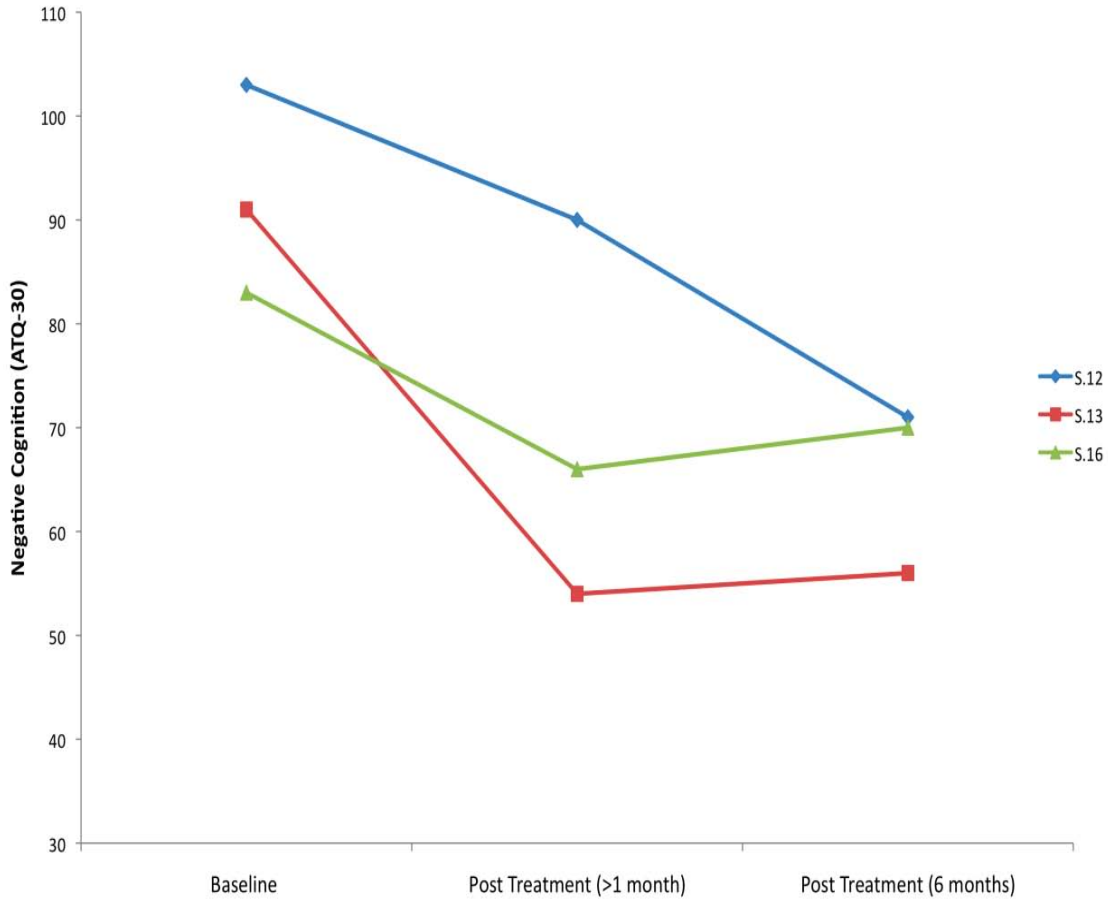

Figure 12. Line graph showing changes in scores on the ATQ-30 for participants who experienced 40-60% reduction in depressive symptoms

7.5.3. Individual Results: Hua Oranga

The Hua Oranga scores for the three participants in Group Three varied in their pre- post- treatment comparisons. In the case of S.13 and S.16 wellbeing improved in all four dimensions with larger changes observed in the *hinengaro* domain. On the other hand S.12 responded differently. Whilst she experienced an improvement in the *hinengaro* dimension of Hua Oranga, she experienced minor reductions in the *wairua* and *whānau* dimensions and no change in the *tinana* dimension.

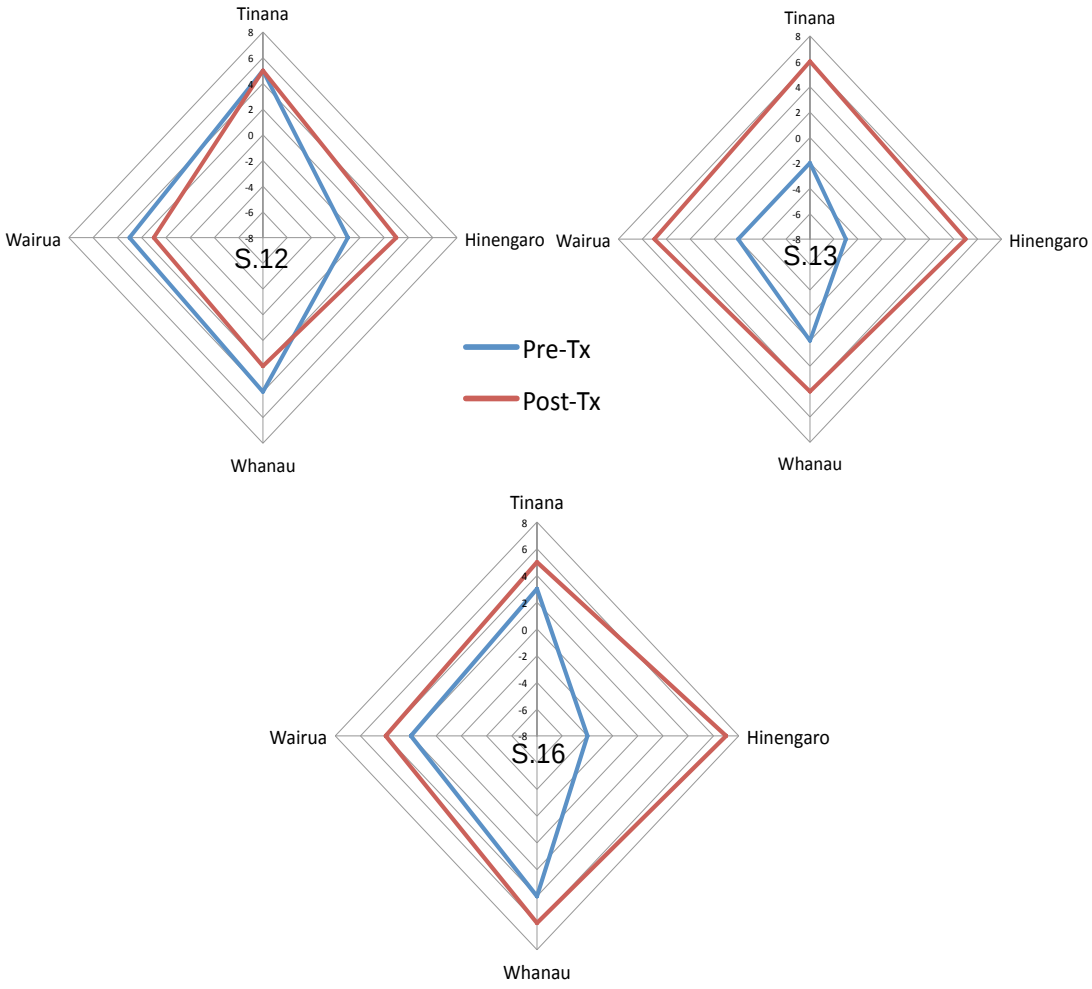

Figure 13. Vector diagrams showing pre-treatment and post-treatment scores on the four dimensions of Hua Oranga for participants who experienced 40-60% reduction in depressive symptoms

7.6. Group Four – Less than 30% reduction in depression

For all the groups of cases examined thus far the provision of CBT has been associated with a reduction in depressive symptoms whereby all of the participants have completed treatment with symptoms in the minimal to mild range. This final group of two participants experienced far less reduction in their depressive symptoms and in the case of S.07, symptoms remained stable within the severe range throughout the course of therapy and post-treatment. The group consisted of two females aged 31 and 36. Both presented with severe symptoms of depression at intake, attended 11 and

10 sessions respectively and notably both presented with complex comorbid diagnoses that included personality disorder, PTSD and substance abuse. In clinical interviews it was identified each of the participants also experienced high levels of social and environmental stress. Both had conflicted relationships with former partners related to custody of children, had traumatic personal histories including sexual abuse, and both were recreational drug users.

Table 5.

Group Four – Participant Characteristics

Subject	Age	Gender	Depression Severity at Intake	Sessions attended	Comorbid factors present	Whānau Involvement (one or more sessions)	Meds
S.07	31	Female	Severe	11	Yes	No	Yes
S.09	36	Female	Severe	10	Yes	Yes	Yes

7.6.1. Individual Results: BDI-II

Figure 14 shows scores on the BDI-II for participants S.07 and S.09. The graphs show that depressive symptoms remained within the severe range throughout all assessment phases in the case of S.07 with little fluctuation. On the other hand S.09 varied considerably more and experienced a reduction (albeit a relatively modest one) in depressive symptoms from baseline to post-treatment with marked fluctuations throughout the treatment phase.

7.6.1.1. Baseline

Both these participants recorded stable baseline readings on the BDI-II with variation well within the desired limits. All baseline scores for these two subjects were in the severe range.

7.6.1.2. Treatment

BDI-II scores during the treatment phase for S.07 and S.09 contrasted markedly. The depressive symptoms of S.07 remained consistently within the severe range with little fluctuation or indication of reducing depressive

symptomatology. Notwithstanding this, during the period from session 4 through to session 7 there was some evidence of a gradual decline in depressive symptoms. The spike in symptoms seen following session 8 was associated with an acrimonious relationship break-up and activation of beliefs associated with previous trauma.

The fluctuating in-treatment BDI-II scores observed in S.09 tended to be associated with complex environmental factors, the most significant of which were legal proceedings associated with a child custody and property dispute with a former spouse. It became apparent during the course of therapy, that specific communication with her former spouse would trigger negative core beliefs about herself. In these circumstances sessions tended to focus on reviewing the cognitive underpinnings of her reaction and then challenging the evidence for negative thoughts that may have arisen. This was something the participant was able to achieve quite effectively in-session however her ability to generalise this skill to situations that occurred outside of sessions was less developed resulting in the reactive nature of the S.09's trendline. Despite this in-treatment scores generally remained below baseline levels indicating that CBT had some therapeutic benefit.

Psychologists have an ethical obligation to review and/or cease treatment in cases where the desired clinical improvement is not being achieved. Particularly in the case of S.07 this was an issue of concern and was discussed with the participant, the researchers supervisor, and the community mental health staff involved in her care (Psychiatrist and Social Worker). The decision to proceed with therapy despite the limited progress was based on the participants stated desire to continue with therapy and her sense that the skills that she was learning would be most useful to her once she had sorted out a range of environmental stressors (relationship and custodial) which were maintaining her depression. Consultation with supervision and other clinicians involved in S.07's care also endorsed the therapeutic benefit and therefore continuation of CBT. The advice of these

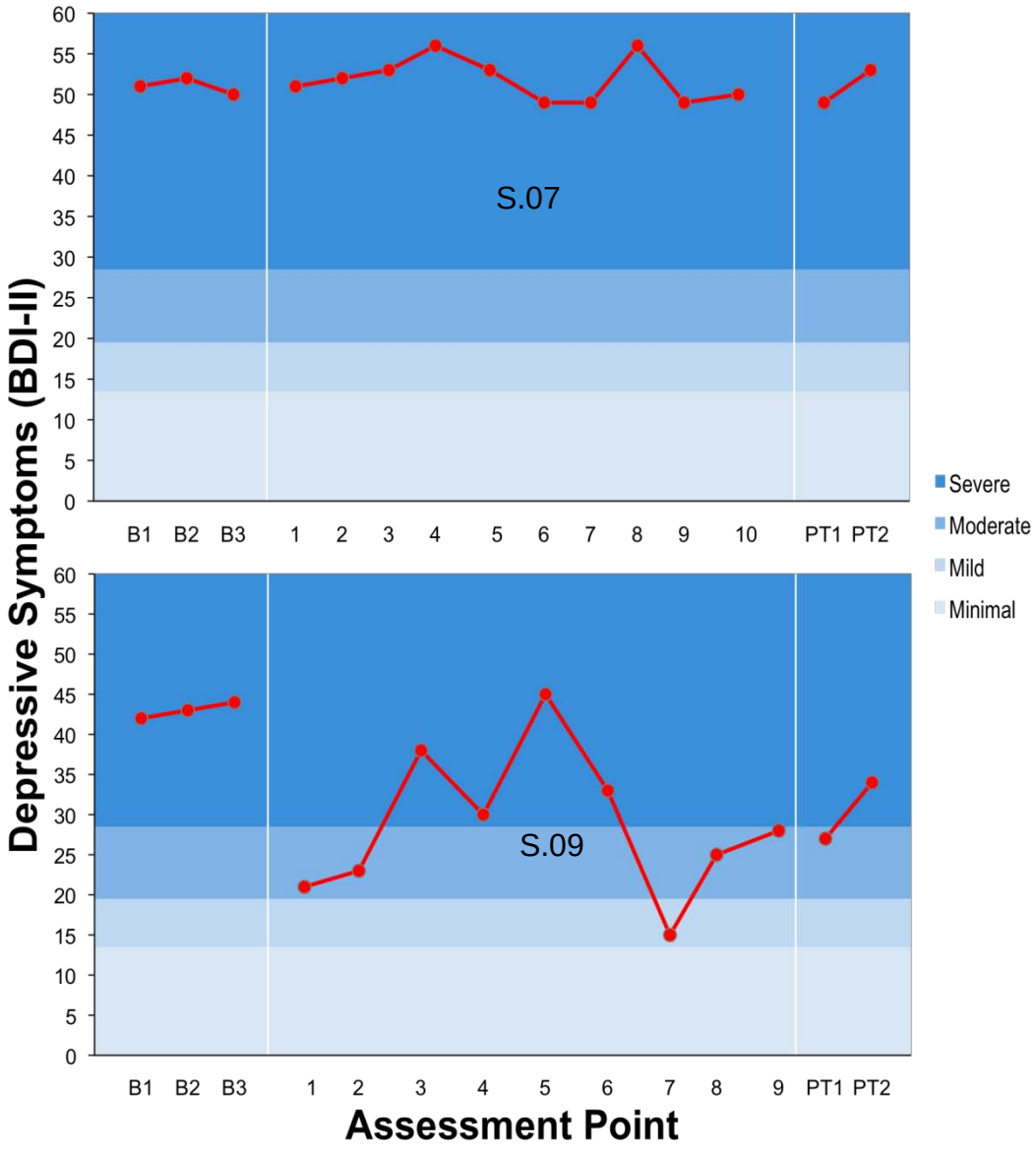

Figure 14. Figure showing depressive symptom change across assessment points for participants who experienced less than 30% reduction in depressive symptom

groups indicated that therapy was benefitting the participant and that limited progress was often seen among clients with complex diagnoses.

7.6.1.3. Post-Treatment

Post-treatment scores for S.07 were consistent with baseline scores. Conversely post-treatment BDI-II scores for S.09 spiked upward with her depressive symptoms returning to the severe range 6-month post-treatment. In the case of S.07 therapy continued to be provided by another clinician (a

social worker) as part of her ongoing management by her community mental health service

7.6.2. Individual Results: ATQ-30

The ATQ-30 scores for S.07 and S.08 were indicative of a very slight reduction in negative cognition as shown in the figure below. However the decrease was minor and reflected the limited improvement made by these participants during the period of therapy.

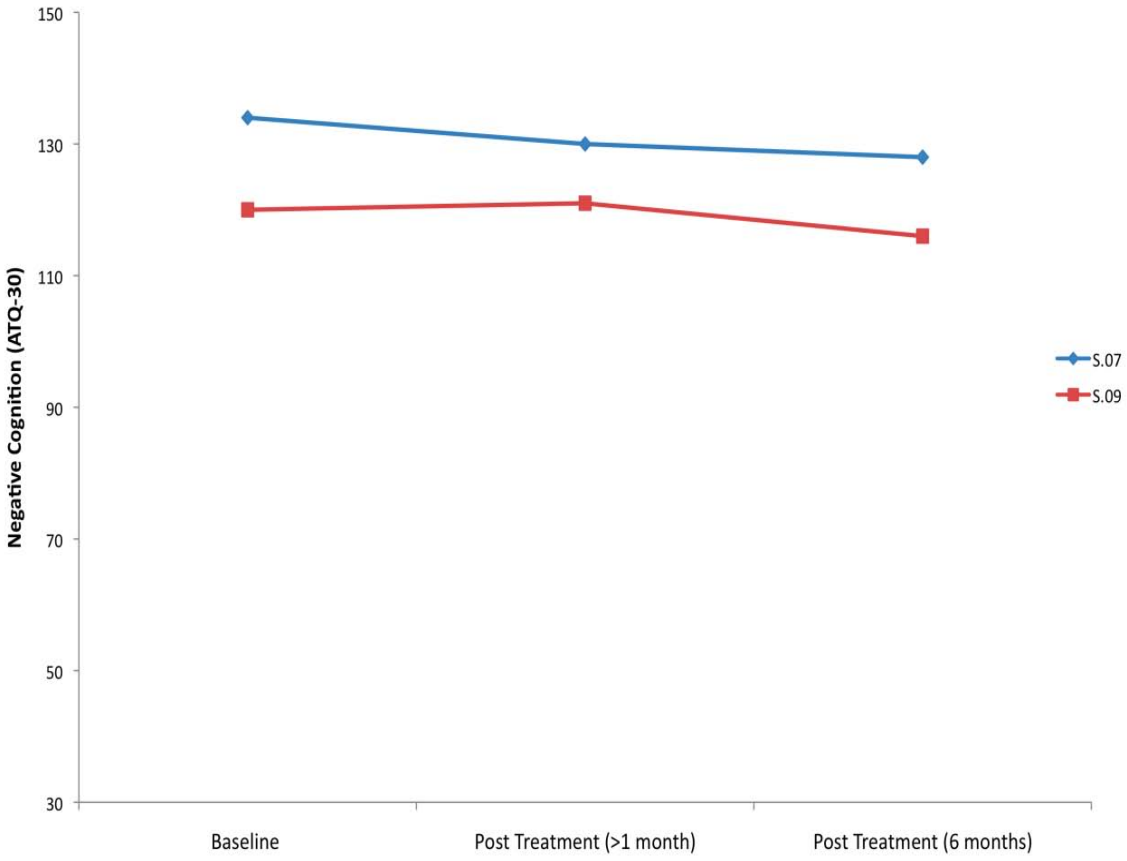

Figure 15. Line graph showing changes in scores on the ATQ-30 for participants who experienced less than 30% reduction in depressive symptoms

7.6.3. Individual Results: Hua Oranga

Figure 16 presents the Hua Oranga graphs for S.07 and S.09. Consistent with their outcomes across the other clinical measures the graphs in general show a lack of improvement across the four dimensions of Hua Oranga. In the case of S.07 the graph shows little change from pre-treatment to post-

treatment with a small increase in the *hinengaro* dimension the only deviation from this. The results for S.09 show a deterioration in the *hinengaro* and *whānau* dimensions with the other dimensions remaining relatively stable. S.09's results are unusual in comparison to all of the other participants in that prior to treatment her highest wellbeing score was on the dimension of *hinengaro*.

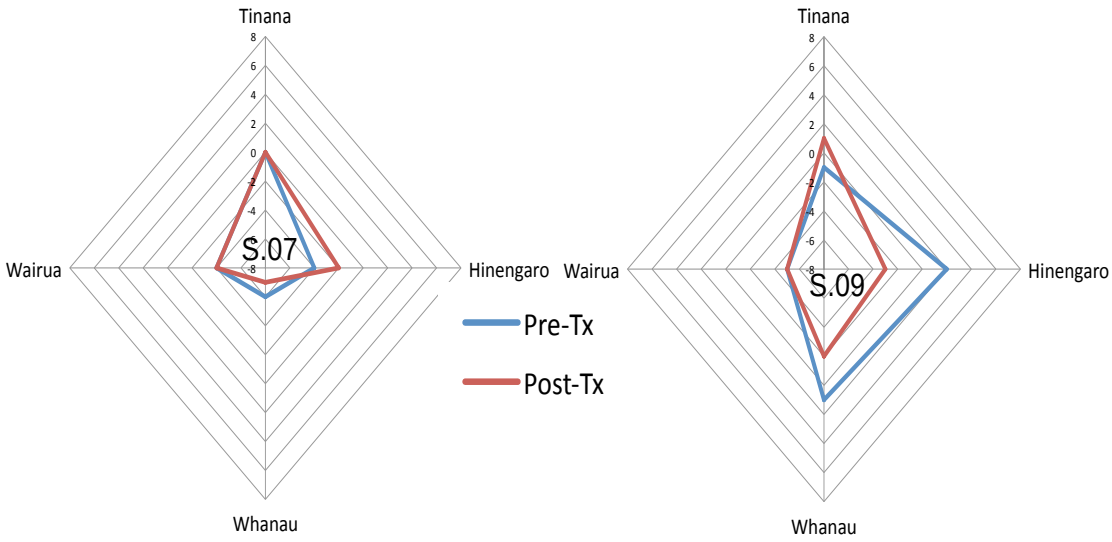

Figure 16. Vector diagram showing pre-treatment and post-treatment scores on the four dimensions of Hua Oranga for participants who experienced less than 30% reduction in depressive symptoms

7.7. Summary

Chapter seven has presented the single case analysis data for the 15 participants who completed treatment. To facilitate a consideration of these results, participants were placed in four groups based on their percentage reduction in depressive symptoms. Group One experienced 90-100% reductions in depression (n=5), Group Two experienced 80-90% reduction in depression (n=5), Group Three experienced 40-60% reduction in depression (n=3), and Group Four experienced less than 30% reduction in depression (n=2). Scores on the three measures of clinical outcome (BDI-II, ATQ, and Hua Oranga) were then presented alongside one another.

The majority of participants benefited from the intervention in so far as 10 of the 15 participants experienced reductions in depression of 80% or more. Trends of note included that among this cohort four presented with comorbid diagnoses (40%), six with pre-treatment depressive symptoms in the *severe* range (60%). The remaining five participants for whom treatment was less successful, experienced reductions in depression that ranged from 0% to 60%. Among this group, all presented with comorbid diagnoses and pre-treatment depression in the severe range. Of the six participants who elected to attend therapy with whānau, five experienced reductions in depression of 80% or more. A high incidence of environmental stress was evident for the two participants who comprised Group Four.

Scores on the ATQ and BDI-II appeared to be relatively congruent with one another. Hua Oranga and in particular the subscale of *hinengaro* appeared to be sensitive to the intervention whereby decreases in depressive symptoms and negative cognition were often associated with increases in wellbeing.

Chapter 8: Group Analysis

8.1 Outline and Aims

This chapter analyses the participant data as a group in order to ascertain treatment success against relevant statistical benchmarks, and identify trends of clinical relevance. The first section will present a basic analysis of the intent to treat data. The second section performs a series of paired samples t-tests to assess whether the difference between pre- and post-treatment means for the measured constructs are significant. The non-parametric Wilcoxon statistic is also calculated and presented. The third section analyses sub-group characteristics in relation to the success of treatment as measured by the raw score change in clinical measures of outcome. Finally a treatment effect score is calculated for relevant clinical and cultural constructs.

8.2. Intent to Treat

Intent to treat analyses are conducted to ensure that the results of clinical trials are an accurate reflection of the success of an intervention. They do this by including subjects who might otherwise be categorised as non-completers and excluded from the analysis. Frequently participants who withdraw from a clinical trial are those who benefit least from the intervention, therefore the inclusion of their data provides an important balance and improves the integrity of the analysis phase. This strategy reduces the risk of false positives or Type I error (Lachin, 2000). This study employed an intent-to-treat design and where possible collected follow-up data on all participants, including those who withdrew from treatment.

In situations where the participant was unavailable for follow-up the last observation carried forward (LOCF) strategy was used. This involves replacing missing values using the last recorded observation and is considered a statistically acceptable method in scientific outcome research (Shao & Zhong, 2003).

Table 6 presents the intent to treat data and the treatment completer data for the BDI-II, ATQ and Hua Oranga scales. The four sub scales of Hua Oranga are also presented in the table. Follow-up data (6-months) was only collected for the BDI-II and the ATQ. Whilst the difference between completer data and intent to treat data is relatively small, subsequent analysis will be conducted on the intent to treat data, which is generally considered to provide a more realistic estimate of treatment success.

Table 6

Mean Scores in clinical outcome measures across assessment points.

Measure	Baseline	Post-Treatment	6-month Follow-up
		Intent to treat analysis	
	(n=16)	(n=16)	(n=16)
BDI-II	28.69 (11.15)	11.25 (13.71)	10.44 (14.45)
ATQ	97.50 (25.48)	70.81 (27.17)	67.00 (27.60)
Hua Oranga	0.81 (9.32)	14.44 (13.42)	-
Hinengaro	-1.31 (3.40)	3.75 (3.28)	-
Tinana	2.44 (2.71)	5.06 (2.62)	-
Whānau	0.50 (3.27)	3.63 (4.30)	-
Wairua	-0.81 (3.08)	2.00 (4.08)	-
		Treatment Completer Analysis	
	(n=16)	(n=14)	(n=15)
BDI-II	28.69 (11.15)	10.71 (13.86)	10.93 (14.81)
ATQ	97.50 (25.48)	71.21 (28.56)	65.93 (28.22)
Hua Oranga	0.81 (9.32)	15.50 (14.05)	-
Hinengaro	-1.31 (3.40)	3.86 (3.48)	-
Tinana	2.44 (2.71)	5.21 (2.78)	-
Whānau	0.50 (3.27)	4.07 (4.32)	-
Wairua	-0.81 (3.08)	2.36 (4.22)	-

8.3 Clinical Impact of the Intervention

In the final analysis three measures were used to assess clinical change amongst the participants in this study. They were the BDI-II, ATQ, and Hua

Oranga. The traditional test utilised to compare means is the Students t-test. The t-test is based on a set of assumptions, one of which is that the distribution of the sample population is normal. The Shapiro-Wilks test was conducted on the baseline outcome data of the sample population to test the normality assumption. For each of the clinical outcome measures, this test did not reject the null hypothesis that the data came from a normally distributed population. Therefore a series of two-tailed paired samples t-tests were conducted to compare the grouped pre-treatment scores of the participants with their post-treatment scores. This analysis determines whether the difference between pre- and post-treatment means is significantly different from zero. The results are reported below.

8.3.1 BDI-II

Table 6 above displays pre- and post-treatment BDI-II means and standard deviations for the paired samples. These statistics allow us to determine the 'direction' of any difference between means. The table shows that the mean pre-treatment BDI-II score is higher than the 1-month and 6-month post-treatment scores indicating that on average depressive symptoms decreased following the intervention.

Mean depression scores decreased from M = 28.69 (*SD* = 11.25) pre-treatment to M = 11.25 (*SD* = 13.71) post-treatment. The first paired test showed that the difference between the two means was statistically significant (t = 6.487, p<.001, df = 15). Therefore, the null hypothesis of no difference between means is rejected. In comparing mean depression scores from pre-treatment to six month follow-up, scores decreased from 28.69 (*SD* = 11.25) pre-treatment to 10.44 (*SD* = 14.45) at follow-up. The t-test indicated that this mean difference was again significant at the .001 level (t = 6.655, df = 15) rejecting the null hypothesis. The high levels of significance (p<.001) indicate that the intervention was associated with a significant difference between pre-treatment and mean scores for both post-treatment and six month follow-up on the BDI-II.

8.3.2 ATQ

Table 6 showed a negative trend for the ATQ whereby post treatment and follow up scores were lower than the baseline scores. This indicates that negative rumination reduced as a consequence of the treatment. From pre-treatment to post-treatment mean ATQ scores reduced from 97.50 (*SD* = 25.48) to 70.81 (*SD* = 27.17)[45]. A paired samples t-test indicated that the difference between these means was significant (*t* =4.3, p<.01, *df* = 15) therefore rejecting the null hypothesis. Scores on the ATQ reduced from 97.50 at pre-treatment (*SD* = 25.48) to 67.00 at follow-up (SD = 27.60). A t-test indicated that the means were again significantly different (t = 5.109, p<.001, df = 15).

8.3.3. Hua Oranga

An analysis of pre and post treatment Hua Oranga scores and its four subscales was conducted. Table 8.2 showed a positive trend in Hua Oranga total scores whereby on average participants scores increased their overall wellness scores from pre- to post-treatment. The four subscale scores mirrored this trend.

The maximum possible overall score on Hua Oranga is 32 indicating high levels of wellbeing across all four dimensions. Conversely the lowest possible overall Hua Oranga score is -32. For this sample overall Hua Oranga scores increased from a mean of 0.81 (SD = 9.32) at pre-treatment to 14.44 (SD = 13.42) at post-treatment. The paired t-test conducted to compare these means indicated that they were significantly different (t = -3.992, p<.01, df = 15).

The maximum possible score on each of the four dimensions of Hua Oranga is 8 and the lowest possible score is -8. Mean scores on the *Hinengaro* sub-scale increased from pre-treatment to post-treatment. These means were

[45] The authors of the ATQ (Hollon & Kendall, 1980) report means of 79.64 (SD = 22.29) among depressed students and 48.57 (SD = 10.89) among non-depressed students.

also found to be significantly different (t = -4.211, p<.01, df = 15). For the *Tinana* sub scale mean scores increased from 2.44 (SD = 2.71) pre-treatment to 5.06 (SD = 2.62) post-treatment. The mean change was significant at the .01 level (t = -3.465, df = 15). Mean scores on the *Whānau* subscale increased from 0.50 (SD = 3.27) prior to treatment to 3.63 (SD = 4.30) following treatment. This difference between means was also significant (t = -3.076, p<.01, df = 15). Finally, scores on the *Wairua* subscale increased from an average of -0.81 (SD = 3.08) pre-treatment to 2.00 (SD = 4.08) post-treatment. Once again the difference between means was significant albeit at a lower level of significance (t = -2.732, p<.05, df = 15). The results of the series of paired t-tests conducted on Hua Oranga are presented in Table 7.

Table 7.

Paired sample t-test comparing mean pre-treatment and post-treatment Hua Oranga scores.

Measure	Pre treatment mean	Post-treatment mean	t	df	P
Hua Oranga (TOTAL)	0.81 (9.32)	14.44 (13.42)	-3.99	15	.001
Hua Oranga (Hinengaro)	-1.31 (3.40)	3.75 (3.28)	-4.21	15	.001
Hua Oranga (Tinana)	2.44 (2.71)	5.06 (2.62)	-3.47	15	.003
Hua Oranga (Whānau)	0.50 (3.27)	3.63 (4.30)	-3.08	15	.008
Hua Oranga (Wairua)	-0.81 (3.08)	2.00 (4.08)	-2.73	15	.015

8.3.4 Wilcoxon Signed Rank

The Wilcoxon signed rank test is a non-parametric test that is used as an alternative to the student t-test for comparing means when the normal distribution of the sample cannot be assumed. Whilst earlier analyses performed on this data set (i.e., the Shapiro-Wilks test) supported the

assumption of normality, an inspection of the means and standard deviations shows that in several cases the standard deviation for the post-treatment data is larger than the mean suggesting that the distribution in some instances is non-normal. A study in the area of CBT adaptation for minority cultural groups that used the same design as the current research (Interian et al., 2008) utilised the Wilcoxon test to compare means. The Wilcoxon statistics for this data set are presented in Table 8.

The Wilcoxon test showed that the difference between Baseline and Post-treatment scores were significant for all of the clinical outcome variables. In addition the 6-month follow-up data for the BDI-II and the ATQ was significantly different from baseline data. These findings further corroborate the t-test results, which indicated a significant difference between the means of pre and post treatment scores.

Table 8.

Wilcoxon Statistics comparing pre-treatment means with post-treatment and follow-up data.

Outcome Measure	**Wilcoxon Statistic**
BDI-II: Baseline→Post-treatment	-3.414**
BDI-II: Baseline→6-month follow-up	-3.466**
ATQ: Baseline→Post-treatment	-3.108**
ATQ: Baseline→6-month follow-up	-3.351**
Hua Oranga: Baseline→Post-treatment	-2.901**
Hinengaro	-2.893**
Tinana	-2.604**
Whānau	-2.556*
Wairua	-2.362*

*p<.05
**p<.01

8.3.5 Treatment Effects

Having established that a significant difference between means existed for each of the clinical outcome measures administered as part of the assessment, treatment effects were calculated for the clinical outcome

variables. The calculation of an effect size provides an indication of the magnitude of the interventions impact on the various clinical outcome measures administered. The treatment effect statistic is also relatively universal and allows for internal and external comparison of the effect size.

The choice of effect size statistic was informed by consideration of several factors. First of all the design of this study lends itself more readily to the calculation of a change effect size (change ES) as there is no control group comparison. The change ES is calculated as the mean difference divided by the standard deviation of difference scores. Thus it is important to note that the change ES is calculated in the metric of change.

Effect sizes calculated based on comparison with a control group (i.e., between subjects design) are typically calculated in the metric of the depression score. It is important when considering the relative magnitude of effect sizes that comparable metrics are used. When calculating an effect size in the original metric of the depression score, there are several options for calculating the index of individual variability (i.e., the divisor for the mean difference). The pretest SD, the posttest SD, or the pooled SD can all be used (Kline, 2004).

The pooled SD is considered the preferable option as it uses information from every data point to calculate the variation in the group. However, the pooled SD can lead to misleading effect sizes particularly when the pre and post SD's are too dissimilar. A commonly used rule is to avoid using the pooled SD if the two variances have more than a fourfold difference (J. Spicer, personal communication, April 14th, 2009). In the case of the current study the variances for the paired difference data was well within these bounds.

Hedge's *g* is the name given to the effect size calculated by dividing the mean difference by the pooled SD. Because Hedge's *g* tends to overestimate the effect size when the sample size is lower than 20 a

correction can be applied. In the case of this data a correction factor of 0.975 was used. Calculating the Hedges *g* effect size using the depression score metric, facilitates the comparison of the effect sizes with other studies that have used the same scale.

Thus three effect size calculations were conducted on each of the dependent variables related to clinical outcome. Table 9 presents the unadjusted and adjusted values for Hedges *g*. The third effect size was calculated by dividing the mean difference between means by the standard deviation of the difference scores.

Table 9.

Effect size statistics for clinical outcome measures using three different standardisers.

Outcome Measure	**Effect size calculation using two different estimates of variability. Pre treatment → post treatment**			**Effect size calculation using two different estimates of variability. Pre treatment → 6-month follow-up**		
	Hedges *g* (unadjusted)	Hedges *g* (adjusted)	*Change ES*	Hedges *g* (unadjusted)	Hedges *g* (adjusted)	*Change ES*
BDI-II	1.403	1.368	*1.623*	1.426	1.390	*1.664*
ATQ	1.014	0.988	*1.072*	1.149	1.120	*1.277*
Hua Oranga (overall)	1.198	1.168	*0.998*	—	—	—
Hua Oranga - Hinengaro	1.516	1.478	*1.053*	—	—	—
Hua Oranga - Tinana	0.985	0.975	*0.866*	—	—	—
Hua Oranga - Whānau	0.826	0.805	*0.769*	—	—	—
Hua Oranga - Wairua	0.786	0.766	*0.683*	—	—	—

Cohen (1988) tentatively defined effect sizes between 0.2 and 0.3 as small, around 0.5 as medium, and greater than 0.8 as large. Using these criteria it can be inferred that large treatment effect sizes were observed for the BDI-II and ATQ. These large treatment effects were observed in comparing baseline data with both post-treatment and follow-up data. Effect sizes for Hua Oranga and two of its subscales (Hinengaro and Tinana) were also large. Hedges *g* indicated large effect sizes for the Whānau subscale however the change effect size was below 0.8. More moderate effect sizes were observed for the Wairua subscale of Hua Oranga.

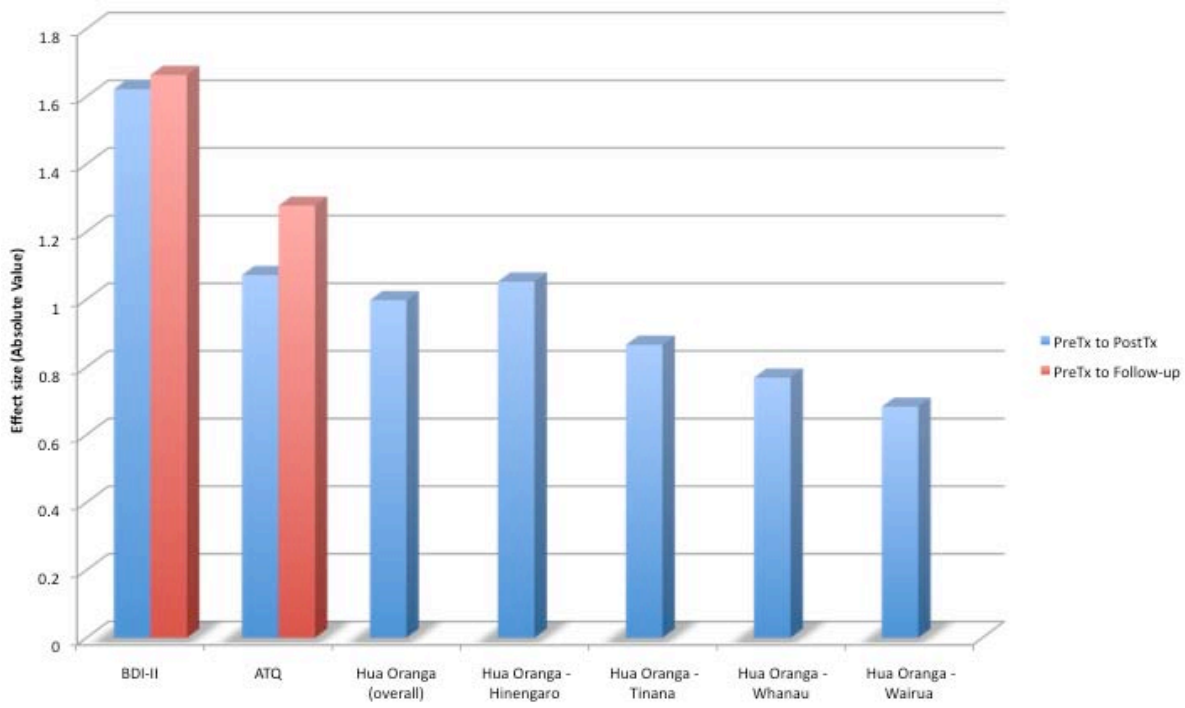

Figure 17. Value of *Change ES* effect sizes for clinical outcome measures.

Figure 17 presents the change effect sizes for the BDI-II, ATQ, and Hua Oranga (plus subscales). The strongest treatment effects were observed (i.e., d>1.00) for the BDI-II, ATQ and the Hinengaro sub-scale of Hua Oranga. Large effect sizes (d>0.8) were observed for all constructs with the exception of the *Whānau* and *Wairua* subscales of Hua Oranga suggesting that the developed treatment intervention had a smaller impact on the domains of family and spirituality.

8.4. Cultural Impact of the Intervention

The impact of this intervention on the presumed more stable constructs associated with identity was investigated. This was undertaken using the same analysis as that used to examine the clinical outcome data. A particular area of interest was how the developed intervention impacted on the cultural identity and affiliation of the participants.

The two measures of cultural identity used were the Multigroup Ethnic Identity Measure (MEIM) and a basic Visual Analogue Scale (VAS). Mean scores on the MEIM was 44.50 (SD = 7.07) prior to treatment and 44.25 (SD = 8.02) following the completion of treatment. The mean difference of 0.25

was not found to be significant at the .05 level (t = 0.298, df = 15) and therefore the null hypothesis cannot be rejected. Mean scores on the VAS also decreased slightly from 82.25 (SD = 19.31) pre-treatment to 79.69 (SD = 20.93) post-treatment. The mean difference was not found to be significant at the .05 level (t = 0.761, df = 15).

These results indicate that the intervention did not impact significantly on the two measures of cultural identity completed by participants of this study. Treatment effect sizes were not calculated for the MEIM and the VAS because the difference between means has not been found to be significant and any observed effect size is likely to be due to chance.

These findings indicate that on measures that directly examined cultural identity, no changes were observed across the course of treatment. However, on domains of functioning considered to have cultural relevance such as *Whānau* and *Wairua* significant change was observed.

8.5. Participant Response to Adapted Therapy

Client satisfaction and the general reaction of participants to the intervention is an important construct in the context of the overall goals of this study. Subsequently a number of aspects of participant response to the adapted treatment have been considered. These included responses to the Satisfaction with Therapy and Therapist Scale, qualitative reactions to the treatment, as well as a discursive analysis of each of the adaptations implemented.

8.5.1. Satisfaction with Therapy and Therapist Scale

The Satisfaction with Therapy and Therapist Scale (Oei & Shuttlewood, 1999) consists of 12-items with two identified factors, ‘Satisfaction with Therapy’ and ‘Client Evaluation of Therapist’. Items are scored from 1-5 on a likert scale ranging from strongly disagree to strongly agree whereby higher scores indicate higher levels of satisfaction.

Thirteen participants completed the Satisfaction with Therapy and Therapist Scale as well as an open-ended item asking for further reflections on the adapted treatment programme. It should be noted that the therapist was not blinded to participant's responses to the client satisfaction measure. This aspect of the design results in a risk that respondents will complete the questionnaire in a manner that reflects favourably on the therapy and/or therapist so as not to offend or upset them.

Table 10 presents their means and standard deviations as well as the average score per item for each factor. Mean item scores that are close to five indicate high levels of satisfaction with the treatment. It shows that amongst this group of participants client satisfaction was high. Higher variability was observed within the 'Satisfaction with Therapy' factor indicating that not all participants were entirely satisfied with therapy.

Table 10.

Means and standard deviations for factors of the Satisfaction with Therapy and Therapist scale.

Factor	Mean	Standard Deviation	Average Item Score
Satisfaction with Therapy	31.62	4.89112	4.51
Client Evaluation of Therapist'	24.3077	1.03155	4.86

The relatively higher variation observed in the Satisfaction with Therapy factor warrants further investigation. Therefore the average item scores for individual participants across both factors is presented in Table 11. The analysis of these shows that in general participants were very satisfied with both the therapy and therapist. Not surprisingly, Table 11 shows that those who benefitted least from the intervention (i.e., S.07 and S.09) scored lower on the Satisfaction with Therapy factor. Despite their poorer treatment outcome and lower satisfaction scores these two participants still evaluated the therapist relatively positively.

Table 11.

Mean item score for participants in each of the two factors measured by the Satisfaction with Therapy and Therapist Scale

Participant	Satisfaction with Therapy (Mean Item score)	Client Evaluation of Therapist (Mean Item score)
S.01	5.00	5.00
S.02	5.00	5.00
S.03	5.00	5.00
S.04	5.00	5.00
S.05	4.00	4.60
S.06	5.00	5.00
S.07	3.14	4.80
S.09	3.29	4.60
S.10	5.00	5.00
S.12	4.00	4.40
S.13	5.00	5.00
S.15	5.00	5.00
S.16	4.29	4.80

8.5.2. Qualitative Feedback

In addition to completing the 'Satisfaction with therapy and therapist scale' clients were also asked to give qualitative feedback regarding their experience of the adapted treatment. Whilst some participants chose not to respond the majority of participants who did, reflected positively on the adapted CBT treatment developed for this study. For example, some clients indicated that the adapted CBT was an integral component of his recovery from depression as highlighted by the following comments:

> "The most important part of my treatment has been the CBT because for the first time… I was able to clearly understand what created moods leading to bad, violent behavioural patterns"

> "CBT has helped me so much"

As discussed earlier S.05's depression fluctuated during the treatment phase, but improved markedly after treatment had completed after a biological cause that had been exacerbating her depressive symptoms was identified and treated. Her reflections on why CBT was initially less useful is illustrated in the following remark:

> "It was frustrating and confusing when I wasn't improving even though I was getting all the right treatment….. even though I understood the CBT and was doing everything I was told, I was still feeling sad"

She went on to point out that the skills that she learnt through attending the CBT sessions are more useful now that her depression has remitted. The experience of S.05 draws parallels to the Te Whare Tapa Wha model as it illustrates the importance of considering the holistic view of health proposed by Durie (1984).

Another participant for whom CBT was less successful, alluded to the difficulties inherent in applying the principles of CBT under stressful and at times chaotic environmental conditions. The comment from S.09 below highlight this:

> "I always came to therapy feeling like shit and then leave feeling really positive but then something would happen at home and then I'd be back to square one"

A number of the participants' comments indicated that they had attained relevant insight into CBT and its associated theories. This indicated that the treatment programme was effective in conveying and instilling pertinent knowledge. Some of these insights are illustrated by the following quotes:

> "I am now in a better position to analyse automatic thoughts which create negative moods".

> “It helped to think of the evidence for and against thereby allowing me to react in a more controlled proper way”

This feedback gives a level of face validity to the treatment protocol and in particular brings the impact of the adaptations to life. The comments provide tentative support for the adaptation of CBT and the integration of cultural variables to enhance the therapy process when working with Māori.

8.5.3. Response to Adaptations

Overall the comments received from participants indicated that the adaptations were well received. This section provides practical information and the subjective perspective of the therapist regarding the implementation of the ten adaptations. A number of participants commented specifically on the adaptations incorporated into the treatment protocol when providing qualitative feedback on their treatment. Where appropriate these comments will be integrated into this discussion. Additionally session notes for participants will be used to highlight certain points.

8.5.3.1. Whakawhanaungatanga

Adaptation One involved “judicious self-disclosure” on the part of the therapist and Adaptation Two involved the use of a genogram to explore the family dynamics of the participant and facilitate discussion around whakapapa. These adaptations were used in all 16 cases including with the participant who attended just two sessions.

Self disclosure on the part of the therapist primarily entailed that related to iwi, hapu and whānau. The following comment from S.06 illustrated her opinion that forming a personal connection with the therapist, in this case through a common tribal affiliation, contributed to the success of her treatment:

> “It was good working with someone from home because it meant you could understand where I was coming from”

Related to the benefits of forming a personal connection with clients, authors such as Iwamasa (1996) have discussed the benefits of ethnic minority clients receiving treatment from therapists of the same ethnicity. Three of the participants commented specifically on the connection associated working with a therapist of the same ethnicity.

The genogram was used as part of the assessment phase to gain insight into relevant family dynamics and contribute to a greater understanding of the participants whakapapa. On a number of occasions this involved the participant "taking control" of the whiteboard marker and drawing the genogram on the board themselves. This was potentially an empowering experience for some of them. For some participants the completion of a genogram was enlightening. The following comment from one of the participants indicated that seeing the dynamics of her family on the board gave her an insight into her own difficulties with depression.

"seeing it up on the board it's so obvious why I've got this problem"

In several cases the use of a genogram served to highlight the complex family arrangements that exist within many Māori whānau. Three participants in the study grew up with close relatives as whangai (refer) or adopted children.

8.5.3.2. Te Taha Wairua

Adaptation Three, involved an exploration of the participants' "access and connection to resources of cultural value". This was done as part of the assessment process and was implemented in every case. Typically assessment of this would consist of questions exploring the frequency of contact with whānau, their marae, and their tūrangawaewae[46]. *Facilitating* access and connection with resources of cultural value was outside the scope of the treatment developed as part of this study however much of this

[46] Home ground.

was done through Te Whare Marie who, with kaumātua and cultural therapists, are well resourced to support their clients in these domains.

Adaptation Four involved the opening and closing of sessions with karakia or whakatauki. Thirteen participants expressed comfort with this process and it was employed throughout therapy for this group. Five participants took responsibility for opening and/or closing sessions at some stage during the course of their therapy. In giving feedback at the completion of treatment, some of the participants commented on *how* the whakatauki had been useful for them. The following comment from S.04 highlights her appreciation of the whakatauki which she described as her "wellness karakia":

> "I really liked the whakatauki that we learnt, me and my son start each day now with 'whakataka te hau…[47]' ".

Another participant indicated that the whakatauki had practical applications for him in his role in a social service as illustrated by the following comment:

> "I use the whakatauki all the time in my mahi with whānau"

Three participants indicated that they would prefer not to begin sessions with a whakatauki or karakia and this preference was respected without question. One participant who did agree to their use, indicated that she often found the process "tokenistic". However after discussing the rationale for using whakatauki with the therapist, she agreed to their use on the basis that the whakatauki had specific relevance to the content addressed in the session. These three participants were still provided with the written translations for the whakatauki that had relevance to session goals.

8.5.3.3. Te Taha Whānau

All 16 participants were invited to involve their whānau directly in sessions via the information sheet as outlined by Adaptation Five. Only six of the

[47] See the fifth whakatauki in appendix G for the whakatauki referred to by S.04.

participants chose to attend any appointments with members of their whānau. There were a range of reasons that participants chose not to bring whānau to their therapy sessions. For example, S.01 indicated that the availability of his partner to attend sessions was limited by her working situation, on the other hand S.07 did not feel that she could involve her family as she had experienced them to be very unsupportive in the past.

Whānau attended for a range of reasons. S.02 brought her high-school aged daughter to two appointments during a period the daughter was experiencing difficulties at school. S.03 attended his first assessment session along with a close friend. The friend was able to provide additional information and a different perspective on S,03's difficulties with depression. S.05 attended three sessions with her pre-school aged daughter. This provided valuable observational information regarding the quality of her interactions with her child. S.09 attended a session with her partner at a time when she had become suicidal. This was in part to support his partner as well as discuss strategies for supporting her during a particularly difficult time. S.14 attended one appointment with her aunty who wanted to express her concerns regarding her nieces wellbeing. Finally, S.15 attended two appointments with his aunty with whom he lives. The aunty wanted to express her concerns and thoughts at her nephews lack of initiative and inability to "hold down a job". In addition to this involvement, whānau were indirectly engaged in the treatment process for the majority of participants as collaborators, supporters and participants in out of session goals set within therapy.

8.5.3.4. Whaikōrero

Adaptations 7 to 10 in the domain of Whaikōrero, involved the use of relevant Māori metaphor across several aspects of the treatment. Translations of whakatauki were given to participants with parallels to treatment objectives highlighted. Culturally relevant vignettes were developed and applied to CBT models such as the 5-Part model and a Cognitive Conceptualisation as examples of the application of CBT. Te Whare Tapa Wha was also utilised as a model for conceptualisation and

assessment. Finally, visual approaches to thought recording and formulation were preferred. These strategies were employed within phases two, three and four of the treatment protocol and were used with the 15 participants who progressed to these phases. The comment below reflects the reaction of one of the participants to these innovations:

> "It was good having someone put this stuff put into a Māori way of thinking"

In summary the responses of participants to the Satisfaction with Therapy and Therapist scale indicated high levels of satisfaction. Appropriately the two participants who experienced the lowest reductions in depression following the treatment evaluated it less positively than those who improved larger reduction in depression. The majority of qualitative feedback from participants indicated that the treatment had been useful. Furthermore specific comment on the adaptations indicated that they were an appreciated aspect of the intervention.

8.6. Summary

This chapter presented the results of the participants' grouped data from this study. A series of analyses were conducted on the clinical outcome measures comparing the pre-treatment and post-treatment means. The analysis showed significant differences between pre-treatment and post treatment scores for all of the clinical outcome measures. Additionally the Wilcoxon signed rank test supported the t-test findings that a significant difference existed between pre-treatment and post-treatment means.

Hedges g and the change effect size statistics were calculated to assess the impact of the intervention. These analyses showed that the treatment effect for the clinical outcome measures was generally large, although effect sizes were more moderate for the Hua Oranga subscales of Whānau and Wairua.

Similar analyses were conducted on the two cultural identity constructs that were utilised. These tests showed that the difference between pre- and post-

treatment scores for the measures of cultural identity was not significant indicating that the intervention did not have a significant impact on the two measures of cultural identity.

Finally, client satisfaction and response to the adapted treatment was assessed. Results on the Satisfaction with Therapy and Therapist scale, feedback from participants, and review of session notes supported the general notion that the majority of participants were satisfied with the therapy and the associated adaptations. The implications of all of these findings will be discussed in detail in Chapter 9.

Chapter 9 – Discussion

9.1 Outline and Aims

This chapter presents the major outcomes and findings of this study, which culturally adapted a treatment protocol and trialled it with a group of clinically depressed clients from Te Whare Marie, a Community Mental Health Service for Māori in the Wellington region. The implications of the major findings of this study will be discussed in relation to the original research question and links to current literature will be established. Finally, the limitations of this research will be identified as a foundation for recommendations regarding future research.

9.2 Major Outcomes and Findings

This first phase of this research developed a CBT treatment protocol adapted for treating adult Māori clients with a diagnosis of depression. The adapted protocol was developed in consultation with relevant theory, empirical research and the guidance of a group of selected advisors. This process yielded a protocol containing ten specific adaptations that were categorised within the domains of whakawhanaungatanga (the domain of connectedness), te taha wairua (the domain of spirituality), te taha whānau (the domain of extended family), and whaikōrero (the domain of metaphor). In addition, in consultation with the advisors a set of cultural considerations were identified which informed the delivery of the treatment protocol. These included an awareness of concepts of relevance to Māori such as collectivism, spirituality, whakamā, cultural identity and Te Reo Māori.

The adapted treatment protocol was trialled with 16 adult Māori recruited through Te Whare Marie, a Māori Mental Health service based in Porirua and servicing the Kapiti, Porirua and Wellington regions. Case study and group analyses were conducted to examine the efficacy of the treatment protocol. Retention rates were excellent with 15 of the 16 participants completing 7 or more of the 12 sessions.

The case study analysis (reported in Chapter 7) indicated that compared to pre-treatment levels most of the participants experienced (a) a reduction in depressive symptoms to below clinically significant levels immediately following treatment and sustained at a 6-month follow-up interval, (b) a reduction in negative cognitions also immediately following treatment and again sustained at a 6-month follow-up interval, and (c) an improvement in general well-being across the four domains of Te Whare Tapa Wha.

For the single case analysis, participants were separated into groups based on the percentage reduction observed in BDI-II scores. A minority of participants (n=5) who experienced smaller reductions in depressive symptoms (<60%) as a result of the intervention shared noteworthy commonalities. All five experienced comorbid psychiatric factors and presented at initial assessment with depressive symptoms in the severe range and just one participant involved whānau in their treatment. Conversely 10 of the 16 participants experienced 80% and greater reductions in depressive symptoms. Of this group just 40% presented with comorbid psychiatric issues and only 60% had initial depressive symptoms in the severe range. Of this group five (50%) attended appointments with members of their whānau.

Statistical analyses (t-tests) conducted on the grouped data showed that the reductions in mean scores for depressive symptoms and negative cognition following treatment were significant (see Chapter 7). Similarly the mean increase in the general well being of participants across the domains of Te Whare Tapa Wha was also found to be significant for all four of the domains. The intervention was not associated with a significant change in the cultural identity scores of the participants.

Treatment effect statistics were calculated for each of the clinical outcome measures administered all. These effect size statistics indicated that the intervention had the greatest impact on depressive symptoms, followed by negative cognition, and then the Hinengaro sub scale of Hua Oranga. Less

substantial effect sizes were observed for the Whānau and Wairua sub scales of Hua Oranga.

Finally an analysis was undertaken of participant satisfaction with the therapy and the acceptability of the adapted treatment protocol. Quantitative analysis indicated that participants were satisfied with the therapy and therapist although satisfaction with therapy was lower among the participants who experienced poorer treatment outcomes with regards to their depression. Feedback received from participants indicated that in the main, participants appreciated the adaptations. Some participants chose not to engage with specifically adapted aspects of the therapy. Just six chose to attend sessions with members of their whānau and three participants declined the use of karakia and whakatauki to open and close sessions.

9.3 Implications of Findings

9.3.1 Implications for the adaptation of CBT

Research Question #1

How can CBT be adapted to make it a more appropriate therapeutic modality when working with Māori clients experiencing symptoms of depression?

A review of international and local literature identified the adaptation of CBT for Māori clients as a necessary consequence of certain cross-cultural limitations inherent in cognitive behavioural theory and practice. Thus the first question posed by the current study related to the *types* of adaptations that cognitive behavioural therapists might employ when working with Māori.

Hirini (1997) identified several areas in which the limitations of CBT might restrict its usefulness with Māori clients. He noted the excessive focus on the individual, and the scientific (as opposed to spiritual) emphasis of CBT, as potentially conflicting with Māori cultural values. Thus, the cultural adaptations implemented for this research project have strong links to local literature such as the critique of Hirini. There are also noteworthy links

between the adaptations recommended by the current research and the international literature on the adaptation of CBT for minority ethnic groups.

'Whakawhanaungatanga' was the first domain of adaptation and primarily consisted of strategies to establish meaningful connections with participants. The primary goals of this process were to build a therapeutic alliance, a widely quoted commodity in the treatment efficacy literature. A number of studies have indicated that the therapeutic alliance is a significant predictor of treatment success irrespective of a range of factors including the type of treatment provided (Martin, Garske, & Davis, 2000). The strategies recommended in the domain of 'whakawhanaungatanga' have notable commonalities with recommendations that have been made regarding the therapeutic alliance with Latino clients. Specifically some authors have stressed the value of a more personal relationship when providing CBT with Latino clients. Recommendations for achieving this include the use of "small talk", therapist disclosure, and expressing an interest in the wellbeing of the clients family (Interian & Díaz-Martínez, 2007; Organista, 2006).

Alliance building strategies typically recommended in the CBT literature include conveying empathy, warmth and support, providing guidance, and affirming and validating client concerns in a genuine way (Gilbert & Leahy, 2007). Whilst these strategies are typically part of the 'rapport building armoury' of cognitive behavioural therapists there were additional strategies that were utilised in the current research. These included the use of self-disclosure and the sharing and exploration of whakapapa as a catalyst for a more intimate personal connection with clients. Some of the feedback received from clients indicated that in their opinion, forming a connection with their therapist (e.g., through a common iwi affiliation) did facilitate the success of treatment. The issue of therapist self-disclosure is ethically complicated and there is debate as to whether it is an effective or appropriate intervention in psychotherapy (Knox & Hill, 2003). Therapists employing this approach should have an acute awareness of boundary related issues and consider their own motivations for self-disclosing before

engaging in the practice (Goldfried, Burckell, & Eubanks-Carter, 2003). However, the findings of this research indicate that a CBT treatment approach that actively employs judicious therapist self-disclosure can be highly effective in the treatment of Māori clients.

Furthermore feedback from one of the clients indicated that the completion of a genogram during the early stages of therapy gave her valuable insights into her own experience of depression. In several cases participants took responsibility for drawing their own genogram on to the whiteboard. This could be seen as potentially empowering, as it acknowledges the client as an expert on their own family thus fostering a strong sense of collaboration between therapist and client as is recommended by the original authors of the CBT manual (Beck et al., 1979).

The second identified domain was ‘te taha wairua’ or spirituality. This recommended the use of relevant karakia or whakatauki to open and close sessions and the awareness of Māori concepts of connection to resources of cultural significance. The importance of spirituality within a Māori worldview has long been recognised by Māori authors (e.g., Durie, 2001; Marsden, 1992; Pitama et al., 2007; Rochford, 2004). It is also a recognised element of Te Whare Tapa Wha making it an appropriate inclusion in the adapted protocol developed for this study.

The concept of incorporating spirituality into psychotherapy also has an international precedent. The recognition and incorporation of relevant religious concepts when working with Christian populations has been clinically trialled and found to be effective (D'Souza & Rodrigo, 2004; Propst, 1996). Furthermore, literature guiding clinical engagement with certain ethnic minority groups recommends an awareness of spiritual aspects of their respective cultures. Some of the population groups for whom an awareness of spirituality has been recommend include Australian Aboriginals’ (D. Vicary & Bishop, 2005), Native Americans (McDonald & Gonzalez, 2006), and people of Jewish descent (Paradis et al., 2006).

The use of karakia and whakatauki as part of the opening and closing of sessions was generally acceptable to the participants although three expressed a preference to not open or close sessions in this way. It is only possible to speculate as to the reasons these three participants declined this aspect of the treatment, however the concerns raised by another participant regarding the “tokenistic” use of karakia suggest one possibility. Another reason might be simply feeling uncomfortable with an unfamiliar process. In contrast some participants embraced the whakatauki and shared and applied them in family and work situations outside of treatment.

The third broad domain of adaptation incorporated into the treatment protocol relates to the inclusion of whānau in the treatment process. Te taha Whānau is also one of the four domains of Durie’s model (1984) and the concept of a collective identity has been recognised as an important aspect of the Māori psyche (Tomlins Jahnke, 2002). Parallels to this particular adaptation can be found in the literature pertaining to CBT with minority populations. In particular the literature regarding Latino clients recommends a stronger consideration of issues of familial significance (Organista, 2006). Another example of the relevance of family in a difference cultural context, is the recommendation that work with Asian clients be informed by an understanding of the concepts of ‘face’ and ‘honor’ as they apply to the reputation of a clients family (e.g., Iwamasa et al., 2006; Lee & Yoo, 2004). Only six participants in the current study chose to attend one or more sessions with a family member, despite all participants being actively encouraged to involve their families. Reasons for not including whānau in therapy varied between participants. The single case analysis revealed noteworthy results regarding whānau involvement. They showed that five out of the six participants who involved whānau in their treatment experienced reductions in depressive symptoms of 80% or more. Whilst the small sample size makes it difficult to draw any definitive inferences from this finding, it may be that the involvement of whānau in CBT treatment with Māori is

associated with improved outcomes. This is an area worthy of further investigation.

The fourth domain related to the use of culturally relevant metaphor in the form of tailored vignettes and the use of relevant proverbs inherent within the whakatauki used to open and close sessions. The metaphor of Te Whare Tapa Wha was also extended to the process of formulation and thought recording. The use of relevant stories and metaphor is encouraged in CBT (e.g., Greenberger & Padesky, 1995; Otto, 2000). Furthermore Māori psychologists have articulated various mechanisms that they have used to incorporate relevant metaphor into their work with Māori clients. For example, Cargo (2007) described her use of the metaphor of a skateboard when providing CBT for young Māori, and Cherrington and Rangihuna (2000) used Māori mythology when providing a narrative approach with Māori clients. The use of Te Whare Tapa Wha in this study brings face validity to the protocol as this is a widely referenced model of Māori health (e.g., Gawith & Abrams, 2006; Glover, 2005; McPherson et al., 2003; Pitama et al., 2007; Rochford, 2004) and has levels of acceptance that extend beyond academia to the New Zealand health system.

In summary the adapted treatment protocol developed for this study incorporates a range of 'non-traditional' CBT strategies designed to improve its clinical utility with Māori clients. The adaptations ultimately settled upon had a number of links to local and international research. The concerns raised by authors such as Hirini (1997) were echoed by the advisory group consulted as part of the protocol development phase, indicating that these factors remain relevant considerations for cognitive behavioural therapists working with Māori clients. It was noteworthy that the limitations that led to several of the adaptations incorporated into the treatment protocol for this study are also mirrored in the international cross-cultural literature recommending adaptations to CBT with a range of non-western cultural groups. These include Australian Aboriginals, Latin Americans, Native

Americans, and Asian populations. This in itself gives a level of external validity to the adapted treatment protocol.

9.3.2. Implications for efficacy and impact

Research Question #2

What impact does this adapted cognitive behavioural approach in the treatment of Māori clients experiencing depression have?

Significant differences between baseline and post-treatment scores, and baseline and follow-up scores on *all* of the clinical outcome measures that were analysed provided strong support for the effectiveness of the adapted intervention. These findings of significant change raise a number of issues that can be considered from several angles.

It could be argued that these findings are not entirely surprising given the weight of international literature that validates CBT as an effective intervention for depression. However, it should be noted that this research is the first clinical trial evaluating the individual delivery of CBT exclusively with Māori clients. The findings therefore represent a highly relevant and original contribution to our knowledge regarding effective treatment and 'best practice' with depressed Māori clients.

In comparing the effect sizes obtained in this study with those reported in other research, it is important that comparable statistics are used (i.e., those that have been calculated in the same metric). Two different effect sizes were calculated in order that the findings could be compared with studies that used a repeated measures design (i.e., the 'change' effect size) and those that used a between-subjects design (i.e., Hedges g). This study did not include a between-subject control and therefore the most meaningful comparisons should be made comparing the 'change' effect size obtained in this study with those reported by other studies that have used a within-subjects design.

Studies that employ a within-subjects design to examine the efficacy of CBT have tended to report large effect sizes. The current research compares favourably with within-subjects studies which have applied CBT in general clinical settings (e.g., Gloaguen, Cottraux, Cucherat, & Blackburn, 1998). In their study, which employed an almost identical design in investigating the efficacy of CBT with a minority ethnic group, Interian et al (2008) reported very large effect sizes in relation to depressive symptoms. Specifically these effect sizes were 2.71 comparing pre-treatment with post-treatment and 2.53 comparing pre-treatment with 6-month follow up. Whilst these values are considerably higher than the change effect size calculated for the current study (1.62 and 1.66 respectively) these authors used a different moderator (i.e., the baseline standard deviation) in calculating their effect sizes. When the pooled standard deviation is applied these effect sizes reduce to the more comparable values of 1.79 (pre-treatment to post-treatment) and 1.76 (pre-treatment to follow-up).

It is also worthwhile contrasting the results with those that have compared CBT with a waitlist or no-treatment control. A meta analysis of 20 such studies examining the efficacy of CBT for depression, reported an overall effect size of 0.82 (Gloaguen et al., 1998) considerably lower than the Hedge's g effect sizes calculated for this study (1.40 and 1.42). Whilst caution should be exercised in comparing the results of this research with those reported in studies that have employed between-subjects designs, it could be inferred from these comparisons that appropriately delivered CBT can be *at least* as effective in treating depression in Māori as the international outcome literature would suggest.

The significant changes and 'moderate' to 'large' effect sizes observed across all four dimensions of Te Whare Tapa Wha (as measured by Hua Oranga) from pre- to post-treatment was a noteworthy finding. This may suggest that an intervention that focuses primarily on one domain of Te Whare Tapa Wha (in this case 'Hinengaro') can have positive implications for the domains not specifically targeted. This provides support for the

holistic and mutually dependent view of wellbeing proposed by Māori experts (e.g., Cram, Smith, & Johnstone, 2003; Durie, 2003).

An important aspect that distinguishes this study from some other research examining CBT with minority groups is that it employed a culturally adapted version of CBT. Therefore in drawing inferences from this research it should be highlighted that the findings provide empirical support for a form of CBT that has been culturally tailored specifically for the participants who received the treatment. Conversely, it cannot be assumed that these findings support the use of generic forms of CBT with Māori. This has clear implications for those who purport to work from a scientist-practitioner model as it provides support for culturally adapted CBT when working with Māori clients but stops short of supporting more general versions of CBT. In part, this was an artefact of the research design that for a variety of reasons did not involve a standard CBT group as a control. However in comparing the results of this study with others that have delivered more generic forms of CBT to ethnic minority groups (e.g., Miranda et al., 2003; Organista et al., 1994), it is possible to infer that making specific adaptations as has been done in this study leads to better treatment outcomes among ethnic minority populations. In this respect the findings are congruent with those of Interian et al. (2008), Otto et al. (2003), and Hinton et al. (2004) who all reported significant changes in key outcome areas and large effect sizes after adapting CBT for use with specific populations.

The case study analyses reflected positively on the adapted intervention in that 10 of the 15 participants who completed 7 or more sessions experienced in excess of 80% reduction in depressive symptomatology. Of equal interest however are the 5 participants who responded less favourably to the intervention (i.e., less than 60% reduction in depressive symptoms).

An examination of these five subjects reveals pre-treatment trends of interest. Firstly, amongst this cohort all 5 participants (i.e., 100%) presented with *severe* depression prior to treatment. This compared with rates of just

40% among the group of 10 who experienced larger (percentage) reductions in depressive symptoms. The small sample size in this study makes it difficult to conduct meaningful statistical analysis examining the extent to which this pre-treatment characteristic might be predictive of treatment outcome. However, such a finding would be entirely consistent with literature that suggests that higher pre-treatment severity scores are associated with poorer outcome in CBT (Hamilton & Dobson, 2002).

The second noteworthy observation was that, additional psychiatric issues or comorbities were present among 100% of the participants for whom CBT was less successful. This compared with comorbidity rates of 60% among the group of 10 who experienced greater treatment success. The influence of comorbid factors on the prediction of CBT outcome has been given relatively little empirical attention perhaps because so many clinical trials specifically exclude participants who present with multiple clinical disorders. However there is literature that supports the notion that comorbid anxiety does impact negatively on CBT treatment outcome for depression (Gelhart & King, 2001).

Despite the limitations associated with the small sample size, it may be that the trends observed in the case study analysis indicate that the presence of comorbid factors and severe pre-treatment depression are predictive of poorer treatment outcomes for depressed Māori clients receiving CBT. Such a phenomenon would be consistent with trends observed in international CBT outcome research.

In contrast to the consistently significant differences between pre- and post-treatment scores found on clinical outcome measures, the intervention did not result in significant changes to the cultural identity of participants. This is a reassuring finding in that it indicates at the outset that the cultural identity of participants was not compromised in any way as a result of participating in a therapeutic intervention with western origins. The other side of this finding, is that participation in the culturally adapted intervention did not augment the

cultural identity of the participants. It could be argued that this finding is surprising given that the adapted intervention purported to promote culture within the context of therapy. However it is the view of this researcher, that an intervention that results in changes to the cultural identity of participants would be ethically contentious at best.

Cultural identity is a personal and unique construct. Clients typically attend sessions with a psychologist with an expectation that therapy will assist in reducing specific psychiatric symptoms of concern. Clients would not generally expect therapy to result in changes to their cultural identity. In this regard the intervention displayed good specificity in that it impacted significantly on constructs that it was expected to effect, and did not impact on those constructs that it is not intended to influence.

9.3.3. Cultural Implications

Research Question #3

How do participants react to the integration of cultural adaptations into the cognitive behavioural treatment approach?

The fact that fifteen of the sixteen participants in this study attended 6 or more sessions adds considerable weight to the argument that the cultural adaptations of CBT implemented by this research were worthwhile and appreciated by the participants. The retention rate (94%) obtained was high in comparison to other studies that have examined CBT efficacy with ethnic minority groups. For example a study by Miranda et al. (2003) which delivered CBT to “predominantly” young, low-income minority women reported that only 36% completed 6 or more of the 12 sessions. Organista, Munoz and Gonzalez (1994) reported retention of 41% in a study examining CBT efficacy with “low-income and minority medical outpatients”. Rossello and Bernal’s study (1999) which compared CBT and IPT for depression with Puerto Rican adolescents reported retention rates of 52% in the CBT stream. It should be noted that Rossello and Bernal used different criteria, indicating that attendance at 8 or more of the 12 sessions qualified as

treatment completion. However, even when these criteria are applied, retention rates for the current study would only be reduced to 75%.

It is noteworthy that in the case of two of the above studies (i.e., Miranda et al., 2003; Organista et al., 1994) the treatment population accessed was more generally described as “minority” indicating that the treatment protocol used was designed for use with a range of ethnic minority groups rather than a specific population which was the focus of the protocol developed for this study. This point provides tentative support for the notion that culturally adapting CBT can result in improved retention rates. It also provides support for the suggestion that CBT outcome literature should be considered cautiously when predicting drop-out rates among ethnic minority groups receiving CBT in general settings as has been suggested by previous authors (e.g., Organista et al., 1994).

The retention rates obtained in this study are more comparable to those reported by Interian et al. (2008) who reported rates of 73% when delivering an adapted CBT protocol to 15 Hispanic clients with depression. It is worth noting that both the current research and Interian et al’s study differed from those with lower retention rates in important ways. Both studies had relatively small sample sizes, used a sole therapist (in both cases the primary researcher) to deliver therapy, and employed a treatment protocol adapted specifically for the ethnicity of the population receiving treatment.

Alongside the excellent retention rates, quantitative and qualitative feedback from the participants has given strong face validity to the levels of acceptability of this intervention. The majority of participants expressed high levels of satisfaction with the therapy and therapist and the majority of comments reflected positively on the treatment received. Given the findings of Te Rau Hinegaro (2006) and in particular the dire levels of service utilisation by Māori that were found, the findings of the current research demonstrate considerable promise. They suggest that it may be possible to

more effectively engage Māori clients with clinical services by employing treatment approaches that align more closely with their cultural worldview.

However it should be acknowledged that there was variation among the group in the way that they responded and accepted cultural aspects of the treatment. Adaptations such as the inclusion of whānau and the use of karakia and whakatauki were not fully engaged with, by every participant. This observed variation within the sample is not surprising and is consistent with Durie's commentary describing the diversity of Māori identity (Durie, 1995). It also relates to a recommendation outlined in Chapter 5 in the section on *Cultural Responsivity*. An important implication of this finding for clinicians to contemplate is that the cultural adaptation of psychotherapy should be tempered by an awareness and understanding of the cultural identity of the client who is receiving the treatment.

9.4 Limitations of the Current Research

In contemplating the implications of these results, it is important to acknowledge the limitations of this research. These limitations will be separated into those that threaten the internal validity of the study and those that threaten external validity.

9.4.1 Threats to Internal Validity

There are limitations inherent in any research conducted with a community based sample particularly when participation is maintained over an extended period. All of the participants were exposed to environmental pressures outside of the therapy during the course of their involvement in the study. With the sample remaining community based only limited controls could be placed around potentially confounding environmental factors. Related to this the length of time between assessment points (in some cases up to one year from baseline to 6-month follow-up), means that the natural maturation of the participants could threaten the internal validity of the study. Related to this, medication use among the sample population was not controlled for therefore it should be acknowledged that in cases where participants were receiving medication, it is difficult to attribute any observed improvement to

the developed treatment. Despite this the majority of participants receiving anti-depressant treatment were in fact long-term clients of the Maori Mental Health Service and had been taking medication for a significant period of time prior to entering the study.

This study did not control for regression to the mean, as it used a within subjects and repeated measures design to assess the efficacy of the intervention rather than compare the treatment group with a relevant control. There is no question that this is a weaker design for determining efficacy than one that employs a between subjects design and a genuine control group (See Section 4.6 for a thorough discussion of the reasons for selecting this design despite its limitations).

The decision to relax the inclusion criteria to allow clients with comorbid psychiatric diagnoses to participate in the study was made to improve the external validity of the results. High levels of psychiatric comorbidity among the depressed Māori population have been found (Oakley-Browne et al., 2006) and it was felt that excluding these individuals from the research would reduce the clinical validity and usefulness of the findings. In saying that, this decision introduced additional confounds to the sample and increased between subject variability.

This study involved repeated administrations of the measures of the dependent variable. Multiple completions of the BDI-II (i.e., at every session) and to a lesser extent the other psychometrics administered are likely to have resulted in an increased familiarity with the measures. It is possible that this familiarity may have impacted on participant responses to subsequent administrations of the dependent variable although it is difficult to predict how.

Finally it should be acknowledged that experimenter bias can have a significant effect on the results of treatment outcome research (Sherif, 1998). The threat that experimenter bias posed to the internal validity of the

research was one of the reasons for moving away from a between subjects design. However it could be argued that the success of the intervention used in this study has been in part due to the researchers affiliation to the adapted application of CBT with Māori.

9.4.2 Threats to External Validity

The use of a single-case design despite its advantages confers several limitations. In the first instance, the non-random selection of participants and the small sample size, means it cannot be assumed that the results are generalisable across other clinical contexts.

Another threat to the external validity of this research is the use of a sole clinician (himself of Māori descent) to administer treatment. The extent to which these findings can be generalised to non-Māori therapists working with Māori in general settings is uncertain and therefore application of the adapted techniques should be exercised with caution. In contemplating this point it is worthwhile however to consider the research conducted by Goldbury (2004) who examined the experiences of Māori who have used the services of non-Māori clinical psychologists. The findings suggested that non-Māori psychologists do work effectively and appropriately with Māori service users, with the development of positive therapeutic relationships being most commonly related to positive client outcomes.

9.5 Directions for Future Research

The findings of this research give rise to a number of recommendations regarding future research directions.

1. Replication using the adapted treatment protocol in different clinical contexts and using a more diverse range of therapists. This will allow for broader generalisation regarding the use of the treatment protocol.
2. The types of statistical analysis possible will increase with a larger sample size. In particular in a larger scale study it would be interesting to investigate how variables such as cultural identity and age interact with the treatment outcomes.

3. Trends related to the adaptations were observed in the case study analysis and warrant further investigation. In particular the specific impact of adaptations such as whānau involvement and therapist self-disclosure would be interesting to assess in the context of a between groups design.
4. This study developed an adapted CBT protocol for use in the treatment of Māori with depression. However, Māori are disproportionately impacted by a range of other psychiatric disorders each of which warrants empirical attention. Whilst some of the adaptations are generic and could potentially be applied across different disorders, research investigating the effectiveness of adapted CBT with Māori experiencing other disorders would be of considerable value.

9.6 Conclusions

The over-arching goal of this study was to "design and evaluate" an adapted CBT treatment protocol in the hope that this would inform the clinical and cultural practice of clinicians providing mental health care to Māori clients in New Zealand. This research has provided support for the adaptation of CBT when treating Māori clients with depression. Participants generally engaged well with the cultural adaptations as indicated by the low rate of drop-outs and the positive feedback received. The intervention reduced depressive symptoms and negative thinking among the group. It also improved the well-being of participants across four culturally-relevant domains. These results were very encouraging given the cultural and psychiatric complexity inherent within the sample group.

It is hoped that these findings might guide the decision making of those in the mental health sector responsible for writing policy and allocating resources. In particular the findings endorse the maintenance and development of services (such as Te Whare Marie) that integrate the clinical care of Māori mental health consumers with an appreciation of the cultural factors that impact on engagement and outcome with Māori clients and their whānau. It is also desired that these findings inform the clinical practice of

both Māori and non-Māori clinicians who aspire to a scientist-practitioner approach and encourage these clinicians to develop their capacity to provide culturally-tailored treatment to Māori clients.

Last but by no means least, it is desired that these results benefit those who are experiencing the debilitating effects of mental illness. Over 50% of Māori experience mental health issues at some stage in their lives (Oakley-Browne et al., 2006). An improvement in the delivery of culturally responsive clinical services to these clients and subsequently improved clinical outcomes would have a whole host of positive ramifications for affected individuals, their whānau, their hapu and their iwi.

In summary, the conclusions of this research make a unique contribution to the fledgling literature on psychological treatment of Māori in Aotearoa. The findings and the words of Ngata whose whakatauki urges Māori to seek out the 'tools of the Pākehā' to sustain themselves. His desire that Māori remain connected to their cultural values in seeking out these tools resonates strongly within the final recommendations of this report. Epidemiological data suggest that in New Zealand we are still some way from a health system that truly meets the mental health needs of the Māori people. In saying that, a health system in which Māori can seek and receive psychological care that not only accepts the uniqueness of their culture, but actively celebrates it, would be entirely congruent with the findings of this study, the sentiments of numerous Māori authors, and Sir Apirana Ngata's famous words.

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Appendix A
Selected Glossary of Māori Words and Phrases[48]

Aotearoa	New Zealand
aroha	compassion, love
āwhi	embrace, support
hapū	sub-tribe grouping defined by descent from a common ancestor[49]
iwi	tribes, people, nation
kai	food
karakia	prayer
kaumātua	elder
koha	gift, contribution
kōrero	speak, talk, conversation
mahi	work
mana	power, authority, prestige
manaaki	care for
marae	gathering and meeting place, the spiritual and symbolic centre of Tribal affairs.
matakite	visionary
Pākehā	of European descent
pōwhiri	the formal Māori process of welcome
rangatahi	young person, youth
tautoko	social support
taha hinengaro	to do with emotions and the mind
taha Māori	a Māori way of doing things
taha wairua	to do with the spirit
tangata whaiora	mental health service users (people

[48] As defined by the Ngata Dictionary unless otherwise indicated.
[49] Herbert (2001)

	seeking health)
tangata whenua	indigenous people
te ao Māori	the Māori world
te reo (or reo)	Māori language
tikanga Māori	Māori customs/protocol
taha tinana	to do with the body
tipuna	ancestors
whakamā	shame, embarrassed
whakapapa	genealogy
whakatau	welcome
whakatauki	proverb, saying
whakawhanaungatanga	the act of establishing whānau connections.
whānau	family, extended family
wharenui	meeting house
whenua	land

Appendix B
The Treaty of Waitangi, 1840

MAORI TEXT

Ko Wikitoria te Kuini o Ingarani i tana mahara atawai ki nga Rangatira me nga Hapu o Nu Tirani i tana hiahia hoki kia tohungia ki a ratou o ratou rangatiratanga me to ratou wenua, a kia mau tonu hoki te Rongo ki a ratou me te Atanoho hoki kua wakaaro ia he mea tika kia tukua mai tetahi Rangatira – hei kai wakarite ki nga Tangata maori o Nu Tirani – kia wakaaetia e nga Rangatira Maori te Kawanatanga o te Kuini ki nga wahikatoa o te wenua nei me nga motu – na te mea hoki he tokomaha ke nga tangata o tona Iwi Kua noho ki tenei wenua, a e haere mai nei.
Na ko te Kuini e hiahia ana kia wakaritea te Kawanatanga kia kaua ai nga kino e puta mai ki te tangata Maori ki te Pakeha e noho ture kore ana.
Na kua pai te Kuini kia tukua a hau a Wiremu Hopihona he Kapitana i te Roiara Nawi hei Kawana mo nga wahi katoa o Nu Tirani e tukua aianei amua atu ki te Kuini, e mea atu ana ia ki nga Rangatira o te wakaminenga o nga hapu o Nu Tirani me era Rangatira atu enei ture ka korerotia nei.

Ko te tuatahi

Ko nga Rangatira o te wakaminenga me nga Rangatira katoa hoki ki hai i uru ki taua wakaminenga ka tuku rawa atu ki te Kuini o Ingarani ake tonu atu – te Kawanatanga katoa o o ratou wenua.

Ko te tuarua

Ko te Kuini o Ingarani ka wakarite ka wakaae ki nga Rangitira ki nga hapu – ki nga tangata katoa o Nu Tirani te tino rangatiratanga o o ratou wenua o ratou kainga me o ratou taonga katoa. Otiia ko nga Rangatira o te wakaminenga me nga Rangatira katoa atu ka tuku ki te Kuini te hokonga o era wahi wenua e pai ai te tangata nona te Wenua – ki te ritenga o te utu e wakaritea ai e ratou ko te kai hoko e meatia nei e te Kuini hei kai hoko mona.

Ko te tuatoro

Hei wakaritenga mai hoki tenei mo te wakaaetanga ki te Kawanatanga o te Kuini – Ka tiakina e te Kuini o Ingarani nga tangata maori katoa o Nu Tirani ka tukua ki a ratou nga tikanga katoa rite tahi ki ana mea ki nga tangata o Ingarani.
(signed) William Hobson, Consul and Lieutenant-Governor.

Na ko matou ko nga Rangatira o te Wakaminenga o nga hapu o Nu Tirani ka huihui nei ki Waitangi ko matou hoki ko nga Rangatira o Nu Tirani ka kite nei i te ritenga o enei kupu, ka tangohia ka wakaaetia katoatia e matou, koia ka tohungia ai o matou ingoa o matou tohu.

Ka meatia tenei ki Waitangi i te ono o nga ra o Pepueri i te tau kotahi mano, e waru rau e wa te kau o to tatou Ariki.

ENGLISH TEXT

Her Majesty Victoria Queen of the United Kingdom of Great Britain and Ireland regarding with Her Royal Favour the Native Chiefs and Tribes of New Zealand and anxious to protect their just Rights and Property and to secure to them the enjoyment of Peace and Good Order has deemed it necessary in consequence of the great number of Her Majesty's Subjects who have already settled in New Zealand and the rapid extension of Emigration both from Europe and Australia which is still in progress to constitute and appoint a functionary properly authorized to treat with the Aborigines of New Zealand for the recognition of Her Majesty's sovereign authority over the whole or any part of those islands – Her Majesty therefore being desirous to establish a settled form of Civil Government with a view to avert the evil consequence which must result from the absence of necessary Laws and Institutions alike to the native population and to Her subjects has been graciously pleased to empower and to authorize me William Hobson a Captain in Her Majesty's Royal Navy Consul and Lieutenant Governor of such parts of New Zealand as may be or hereafter shall be ceded to Her Majesty to invite the confederated and independent Chiefs of New Zealand to concur in the following Articles and Conditions.

Article the first

The Chiefs of the Confederation of the United Tribes of New Zealand and the separate and independent Chiefs who have not become members of the Confederation cede to her Majesty the Queen of England absolutely and without reservation all the rights and powers of Sovereignty which the said Confederation or Individual Chiefs respectively exercise or possess, or may be supposed to exercise or possess, over their respective Territories as the sole Sovereigns thereof.

Article the second

Her Majesty the Queen of England confirms and guarantees to the Chiefs and Tribes of New Zealand and to the respective families and individuals thereof the full exclusive and undisturbed possession of their Lands and Estates Forests Fisheries and other properties which they may collectively or individually possess so long as it is their wish and desire to retain the same in their possession; but the Chiefs of the United Tribes and the individual Chiefs yield to her Majesty the exclusive right of Preemption over such lands as the proprietors thereof may be disposed to alienate at such prices as may be agreed upon between the respective Proprietors and persons appointed by Her Majesty to treat with them in that behalf.

Article the third

In consideration thereof Her Majesty the Queen of England extends to the Natives of New Zealand Her Royal Protection and imparts to them all the Rights and Privileges of British subjects.
[signed] W. Hobson Lieutenant Governor

Appendix C

DSM-IV-TR criteria for Major Depressive Episode[50]

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either:

(1) depressed mood or;

(2) loss of interest or pleasure.

Note: Do not include symptoms that are clearly due to a general medical condition, or mood-incongruent delusions or hallucinations.

(1) depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful). **Note:** In children and adolescents, can be irritable mood.

(2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation made by others).

(3) significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. **Note:** In children, consider failure to make expected weight gains.

(4) Insomnia or Hypersomnia nearly every day.

(5) psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down).

(6) fatigue or loss of energy nearly every day.

(7) feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).

(8) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).

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[50] (American Psychiatric Association, 2000)

(9) recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide

B. The symptoms do not meet criteria for a Mixed Episode.

C. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

D. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hypothyroidism).

E. The symptoms are not better accounted for by Bereavement, i.e., after the loss of a loved one, the symptoms persist for longer than 2 months or are characterized by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation.

Appendix D
Tohunga Suppression Act, 1907

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(1) This Act may be cited as the Tohunga Suppression Act, 1907.

(2) Every person who gathers Māori s around him by practising on their superstition or credulity, or who misleads or attempts to mislead any Māori by professing or pretending to profess supernatural powers in the treatment of cure of any disease, or in the foretelling of future events, or otherwise, is liable on summary conviction before a Magistrate to a fine not exceeding twenty-five pounds or to imprisonment for a period not exceeding twelve months in the case of a second or any subsequent offence against this Act.

(3) No prosecution for an offence against this Act shall be commenced without the consent of the Native Minister first had and obtained.

Appendix E

Question Format for Advisory Group Interviews

Consultant: _____

1. **Explain Research Questions**
2. **Explain Study Design**
3. **Questions:**

General thoughts concerns regarding study and design

What do you view as the limitations or weaknesses of CBT with Maori clients?

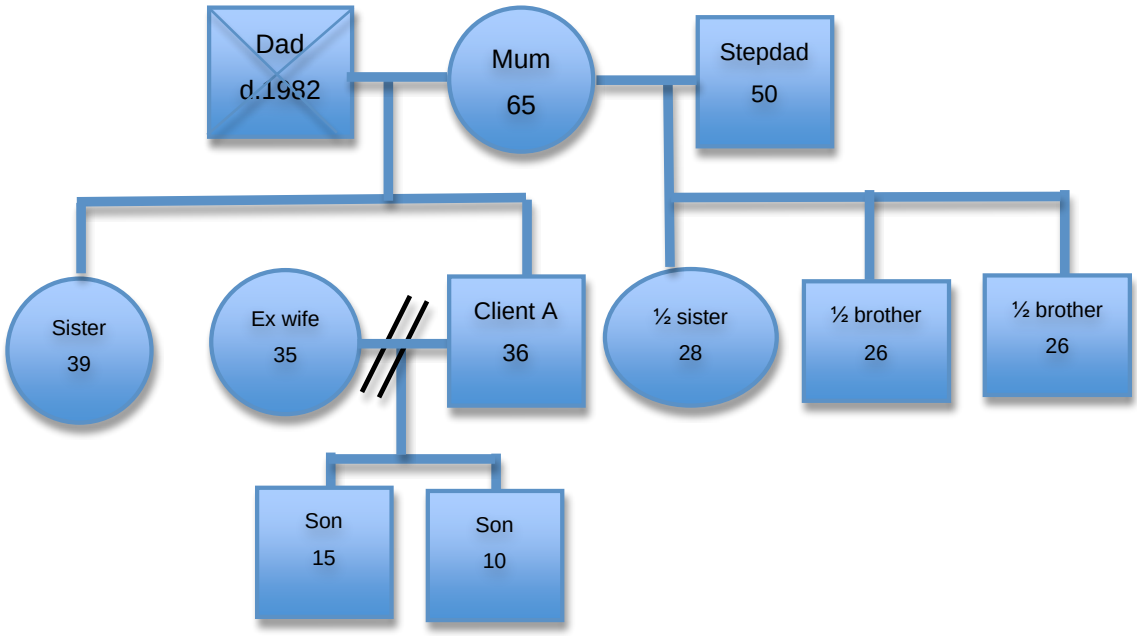
When you are using CBT or some of its components with Maori clients, how do you adapt your practice in the following areas?

Process

Structural elements (e.g, activity schedules, thought recording, behavioural experiments)

Appendix F

Example of Genogram as used in this research for Client A



Appendix G

Selected whakatauki used in the adapted CBT and their English translations

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1.

Ma te huruhuru te manu ka rere

It is the feathers that enable the bird to fly

2.

He oranga ngākau, he pikinga waiora.

Positive feelings in your heart will raise your sense of self-worth.

3.

Te tiro atu to kanohi ki tairāwhiti ana tera whiti te ra kite ataata ka hinga ki muri kia koe.

Turn your face to the sun and the shadows will fall behind you.

4.

Ki te whakaarohia ka taea. Ki te whakaarohia rānei kāore e taea. He tika koe.

If you think you can, or if you think you can't, then you're correct.

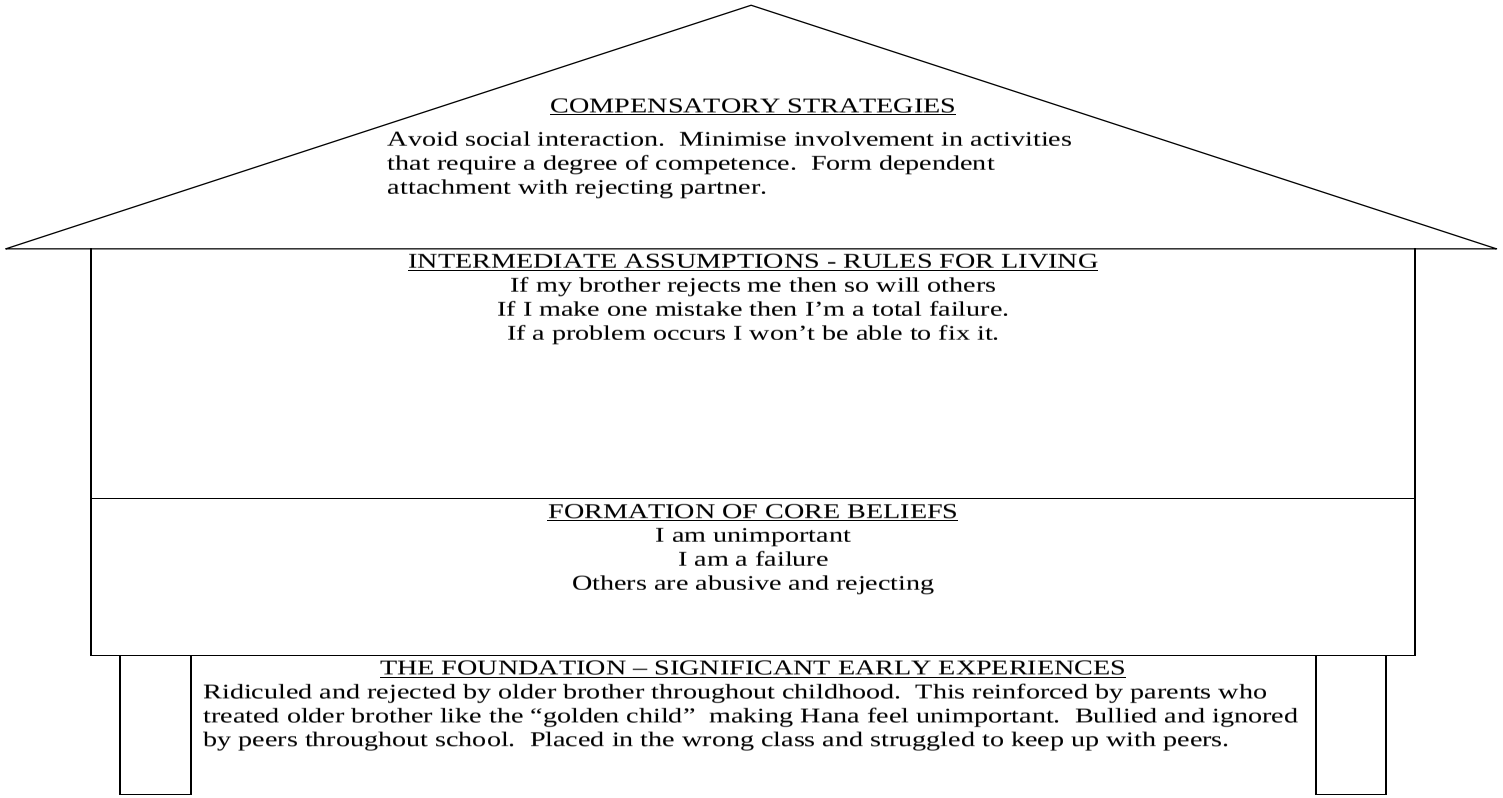
5.

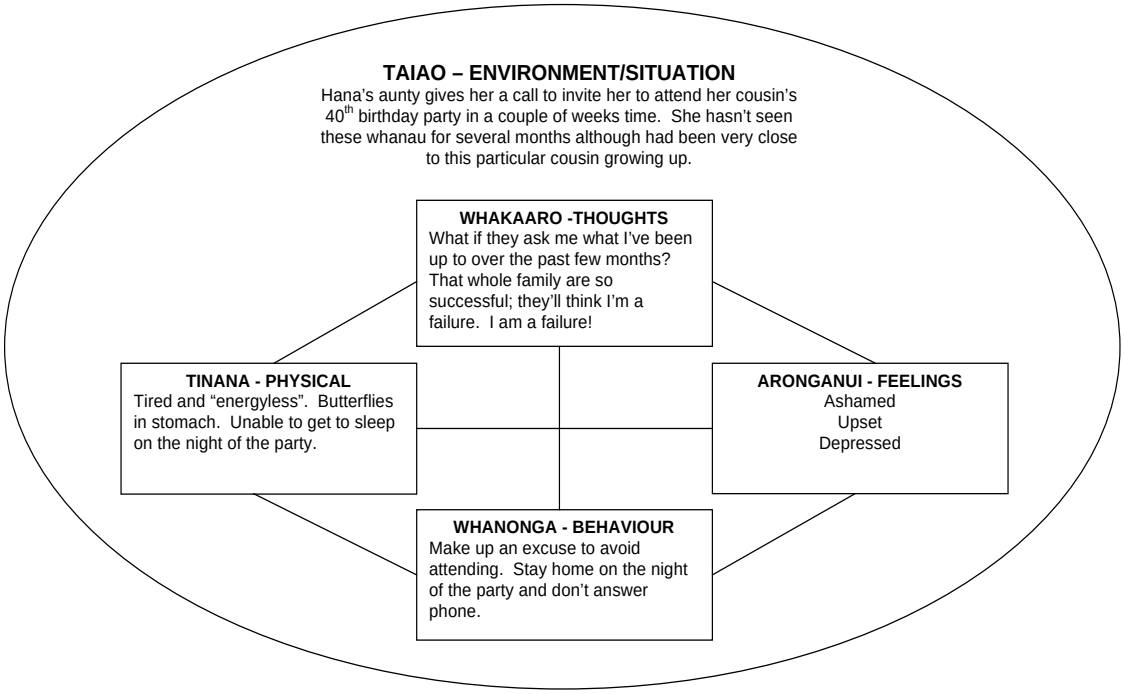
Whakataka te hau ki te uru, whakataka te hau ki te tonga. Kia mākinakina ki uta, kia mātaratara ki tai. E hi ake ana te atakura. He tio, he huka, he hau hu. Tīhei mauri ora.

Cease the winds from the west, cease the winds from the south.
Let the breeze blow over the land, let the breeze blow over the ocean. Let the red-tipped dawn come with a sharpened air, a touch of frost, a promise of glorious day.

Appendix H

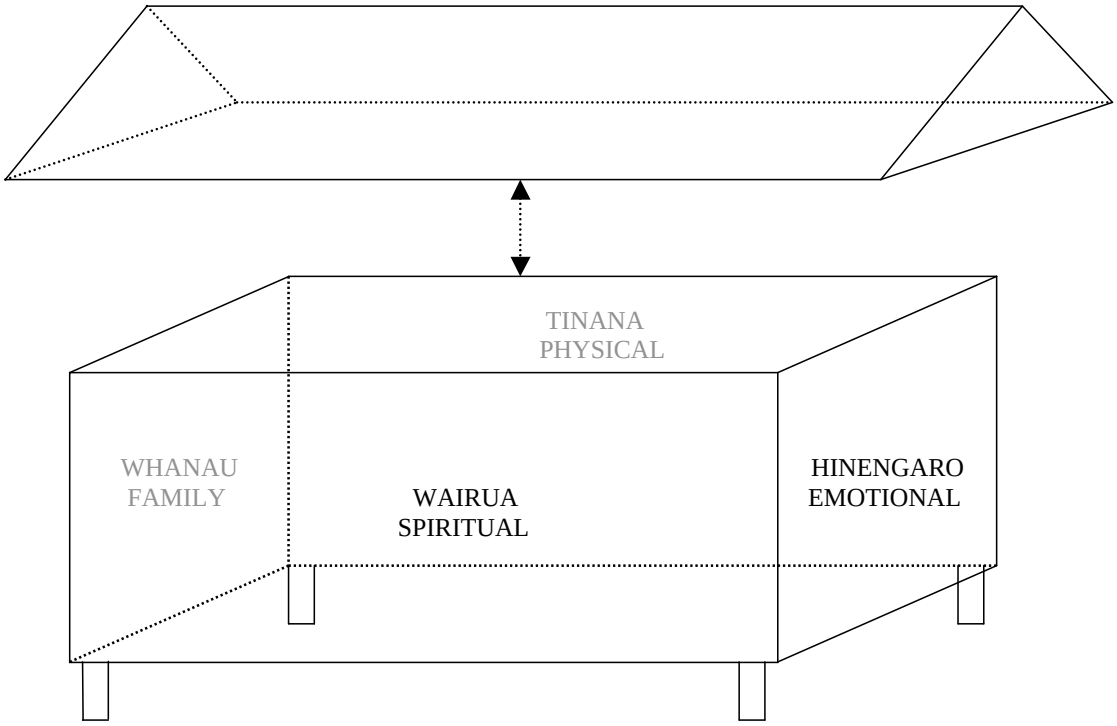
Applied examples of adapted Cognitive Conceptualisation Diagram and 5-Part Model – Hana




TAIAO – ENVIRONMENT/SITUATION
Hana's aunty gives her a call to invite her to attend her cousin's 40th birthday party in a couple of weeks time. She hasn't seen these whanau for several months although had been very close to this particular cousin growing up.
WHAKAARO -THOUGHTS
What if they ask me what I've been up to over the past few months? That whole family are so successful; they'll think I'm a failure. I am a failure!
TINANA - PHYSICAL
Tired and "energyless". Butterflies in stomach. Unable to get to sleep on the night of the party.
ARONGANUI - FEELINGS
Ashamed
Upset
Depressed
WHANONGA - BEHAVIOUR
Make up an excuse to avoid attending. Stay home on the night of the party and don't answer phone.

Appendix I

Te Whare Tapa Wha diagram provided to participants



Appendix J
Adapted thought records given to participants to complete

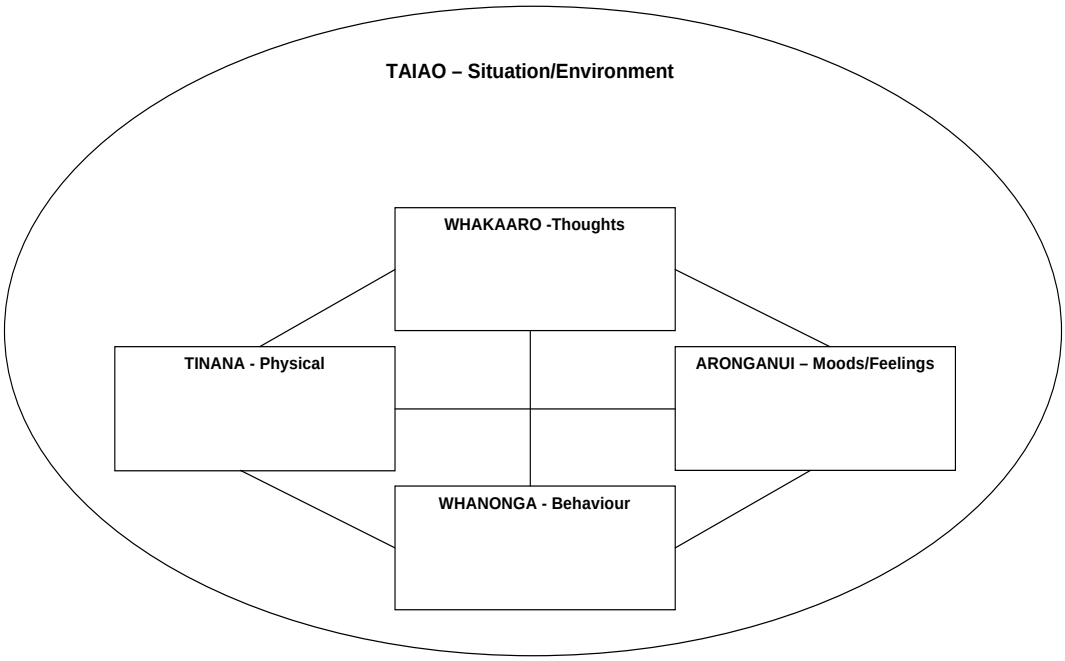


Figure I-1. Basic Thought Record Form

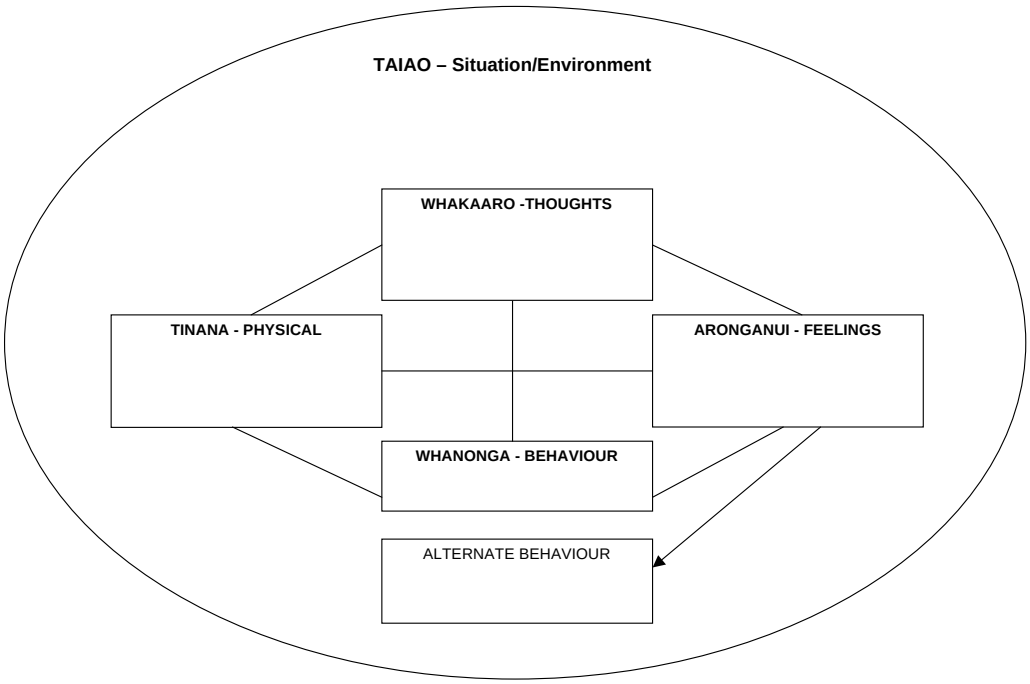


Figure I-2. Thought Record Form including alternate behaviour.

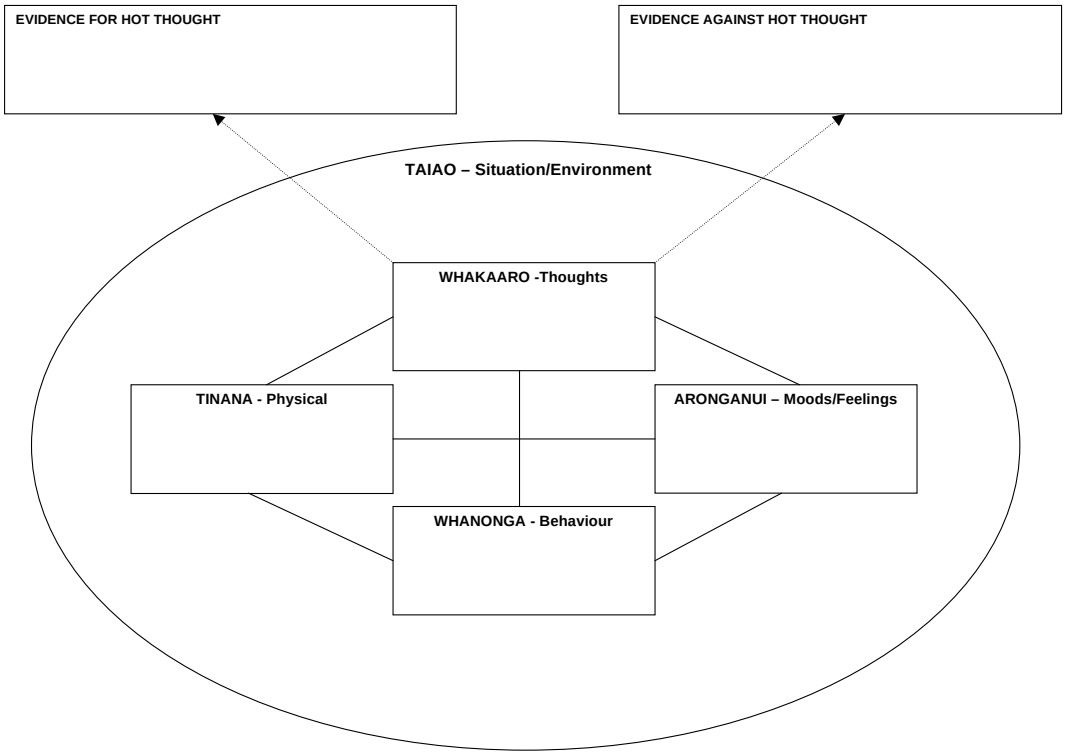


Figure I-3. Thought Record Form including evidence for and against hot thought.

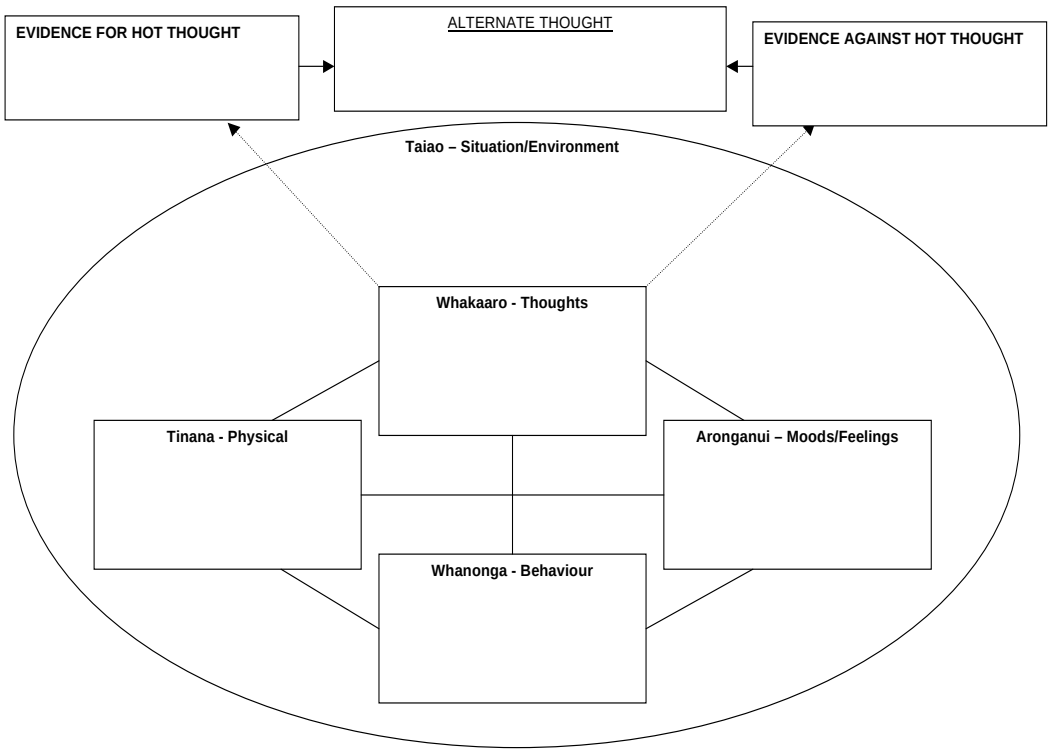


Figure I-4. Thought Record Form including evidence for and against hot thought and alternate thought.

Appendix K
Hua Oranga – Adapted client version used in this research

Tangata Whaiora Schedule

NAME: **DATE:**

Q1. At this point in time do you feel: (Please Circle One)

a)	valued as a person	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*
b)	strong in your identity as a Maori	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*
c)	content within yourself	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*
d)	healthy from a spiritual point of view	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*

Q2. At this point in time do you feel: (Please Circle One)

a)	able to set goals for yourself	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*
b)	able to think, feel and act in a positive manner	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*
c)	able to manage unwelcome thoughts and feelings	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*
d)	able to understand how to deal with your health problem	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*

Continued over

Q3. At this point in time are you: (Please Circle One):

a)	able to move about without pain or distress	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*
b)	committed to having good physical health	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*
c)	able to understand how physical health improves mental well-being	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*
d)	physically healthy	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*

Q4. At this point in time do you feel: (Please Circle One):

a)	able to communicate positively with your Whanau	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*
b)	confident in relationships with other people	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*
c)	clear about the relationship with your Whanau	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*
d)	able to participate in the community	*Strongly agree*	*Agree*	*Neither Agree or disagree*	*Disagree*	*Strongly Disagree*

Appendix L
Information Sheet and Consent Forms

Massey University
WELLINGTON

PSYCHOLOGY CLINIC
24 King Street
Mt Cook
Private Box 756
Wellington
New Zealand
T 64 4 801 0492
F 64 4 801 0493
www.massey.ac.nz

Cognitive Behavioural Therapy (CBT) in Aotearoa: CBT for Depression with Maori tangata whaiora

Simon Bennett
c/o Massey University Psychology Clinic, 24 King St
Massey University
Wellington
Ph (04) 8015799 ext 62033

Client Information Sheet

Tena koe,

You have been invited to participate in a study of approximately 50 participants looking into the effectiveness of Cognitive Behavioural Therapy (CBT) in working with Maori clients. CBT is a clinically and research proven approach to a number of mental health issues. As a result of numerous studies by research psychologists and psychiatrists CBT has become the preferred psychological treatment for several psychological conditions including depression.

The study and therapy is being conducted by Simon Bennett, a Senior Clinical Psychologist and Health Research Council (HRC) Clinical Research Fellow who is conducting this research as part of his doctoral dissertation. Simon is of Maori descent with iwi links to Te Arawa, Nga Puhi, and Kai Tahu and has previously worked as a Clinical Psychologist for Maori Mental Health Services in the greater Wellington area. Supervision is being provided by Dr Ross Flett, Senior Lecturer in the School of Psychology at Massey University.

Why have I been invited to participate in this study?
Your community mental health team have been given information on this research project and subsequently they have identified you as someone who could benefit from receiving cognitive behavioural treatment for depression.

What are my rights?
You are free to decline participation in this study and this will have no effect on your future healthcare. You can ask questions at any time and can withdraw from the study at any point up to the completion of therapy.

Am I eligible to participate?
If you identify as Maori, are 20 years of age or over, currently experience symptoms of depression as your primary presenting difficulty, and have not previously received CBT treatment you are eligible to participate in this study.

What is CBT and how does it work?
CBT is a form of psychotherapy that emphasises the role of our thoughts in influencing our emotional and behavioural reaction to challenging situations. Therefore, if we are experiencing unwanted feelings and behaviours, it is important that we identify the thoughts that are causing these reactions and subsequently learn how to replace this thinking with thoughts that lead to more desirable reactions.

What would happen if I agreed to participate in this study?
If you agree to participate a time would be arranged for you to meet the researcher at which time you would be asked to complete a series of questionnaires. You would then be given a time for your first appointment for CBT treatment. N.B. Clients who agree to participate in this study will be placed on an 3-week waiting list. Therefore your first appointment will be up to three weeks from the time of your initial meeting.

What will happen during the three weeks that I am waiting for my first appointment?
You will receive treatment as usual from your community mental health service (e.g., ongoing appointments with your case manager and doctor). During the 3-week period you would be asked to complete a set of questionnaires at various points during that time.

How long does CBT take?
The CBT treatment protocol developed for this study consists of 12 weekly sessions that last up to one hour in duration.

Will my sessions be recorded?
You may be asked for permission to audio-tape one or some of your sessions for CBT. Should you consent, this tape would be reviewed by the researchers clinical supervisor to ensure that the CBT treatment that you receive adheres to the developed protocol. This decision will not impact in anyway on your eligibility for the study or the treatment that you receive. After any tapes have been reviewed they will be permanently deleted.

Where will my appointments be held?
Appointments will be held at the Massey University Wellington Psychology Clinic on 24 King St, Mt Cook, Wellington. However if you live in the Porirua area and would be prefer to be seen there appointments can be held there.

Can my whanau attend my appointments?
You are welcome to bring whanau support people to your appointments with you; these can either be members of your family, friends, or other health professionals involved in your care.

How will my information be used?
As a participant in this study you will also be a client of the Massey University Wellington Psychology Clinic. In order to provide you with the best possible service, session notes will be recorded and kept on file at the clinic. This information will be kept in a locked secured filing cabinet at the clinic. The results of this study may be published but only in a summarised form that ensures that participants remain anonymous.

How will my confidentiality be protected?
Information from the project will be kept in a locked briefcase if it is being moved. Computer files will have a password. The results will be kept for a 10 year period. At the end of this period, research information will be disposed of by Psychology Clinic staff. The names of those in the study will be kept private. People who take part will be given a code number.

Who do I contact if I have concerns about this research project?
If you have any questions or would like any further information please feel free to contact Simon Bennett. Alternatively if you have any concerns regarding your rights as a participant in this study, you may wish to contact a Health and Disability Advocate. Contact details for the Health and Disability Commissioner are as follows:

ADNET
Regional Office
PO Box 782
Wanganui
Phone: 0800 423 638

This project has been reviewed and approved by the Central Regional Ethics Committee, Application CEN/06/02/009.

Simon Bennett
Senior Clinical Psychologist
Researcher

Doctor Ross Flett
Senior Lecturer
Supervisor

Massey University
WELLINGTON

PSYCHOLOGY CLINIC
24 King Street
Mt Cook
Private Box 756
Wellington
New Zealand
T 64 4 801 0492
F 64 4 801 0493
www.massey.ac.nz

Cognitive Behavioural Therapy (CBT) in Aotearoa: CBT for Depression with Maori tangata whaiora

CONSENT FORM

THIS CONSENT FORM WILL BE HELD FOR A PERIOD OF TEN (10) YEARS

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I understand that my research data will be destroyed after a period of 10 years.

I understand that I can withdraw from the study at any time without this affecting my future healthcare.

I have been informed that information that I provide for the purposes of this study will remain confidential.

I know how to contact the researcher if I have any queries.

I agree to participate in this study under the conditions set out in the Information Sheet.

English	I wish to have an interpreter.	Yes	No
Maori	E hiahia ana ahau ki tetahi kaiwhakamaori/kaiwhaka pakeha korero.	Ae	Kao
I would be willing to have one or some of my sessions audio-taped under the conditions set out in the Information Sheet.		Yes	No

Signature: ..... **Date:** .....

Full Name (printed): .....

I understand that I can receive a copy of a summary of results from the study once it is concluded and can indicate my wish to do so by completing the details below:

.....

I wish to receive a copy of the summary of the results of the study once it is completed.

I have provided the relevant contact details:

Contact address: .....
.....

Contact Phone No: .....

Signed: .....

Appendix M

Adapted activity schedule completed by participants

WEEKLY ACTIVITY SCHEDULE

(CBTMD – Form 1)

Instructions: For each hour of the week, fill in what you actually did and ratings for how much pleasure and achievement you actually experienced. To rate pleasure, use a scale where 0 = "no pleasure" and 10 = "the most pleasure you can imagine," with 5 indicating a moderate amount of pleasure. For example, fill in "talked with friend, 6" in the box for Tuesday at 10 A.M. if you rate yourself as experiencing that amount of pleasure from talking with a friend at that day and hour. To rate achievement (the feeling of accomplishment you get from an activity), use a similar 0–10 scale, and write the rating as the second number after the activity (e.g., "talked with friend, 6/5").

Time Te Taima	Monday Rahina	Tuesday Ratu	Wednesday Raapa	Thursday Rapare	Friday Ramere	Saturday Rahoroi	Sunday Ratapu
6am Ono karaka							
7am Whitu karaka							
8am Waru karaka							
9am Iwa karaka							
10am Tekau karaka							
11am Tekau ma tahi karaka							
12pm Tekau ma rua karaka							
1pm Tahi karaka							
2pm Rua karaka							
3pm Toru karaka							
4pm Wha karaka							
5pm Rima karaka							
6pm Ono karaka							
7pm Whitu karaka							
8pm Waru karaka							
9pm Iwa karaka							
10pm Tekau karaka							
11pm Tekau ma tahi karaka							
12pm-6am Tekau ma rua karaka ki Ono karaka							