The Effectiveness of a Guided Low Intensity Cognitive Behavioural Therapy Programme with Adult Māori Experiencing Low Mood in a Community-Based Setting

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ABSTRACT

Common mental health disorders such as depression is a leading cause of ill health and disability. The global problem is underscored by a lack of access to evidenced based psychotherapy and under resourced workforce. Low intensity Cognitive Behavioural Therapy (LI-CBT) within a stepped care approach is one way to alleviate the burden of mental health and increase service delivery. LI-CBT Studies have been conducted in New Zealand and were effective at treating mild to moderate depression with non-Māori groups and across individual and group formats. However, studies investigating the effectiveness of Cognitive Behavioural Therapy (CBT) with Māori are sparce considering that Māori are at increased risk of poor mental health outcomes.

This study investigated the effectiveness of an unadapted individually delivered telephone guided LI-CBT programme, Living Life to the Full with Māori adults using longitudinal multilevel modelling. The current study monitored change in low mood, psychological distress and quality of life enjoyment and satisfaction across 13 time points, which consisted of three weekly baseline measures, eight weekly measures during the intervention and one a six- and twelve-weeks post programme.

A total of 20 participants of Māori descent were recruited in which 18 participants completed the Living Life to the Full programme. Multilevel modelling and the variable of time explained a significant portion of variance to provide more conclusive evidence to suggest that on average participants experienced significant improvement in low mood, psychological distress, and quality of life enjoyment and satisfaction comparative to similar LI-CBT studies.

The current study fills a void in the literature and supports the effectiveness of low intensity Cognitive Behavioural Therapy (CBT) for Māori experiencing low mood, when delivered by a Māori facilitator. Therefore, the implementation of LI-CBT programmes such as Living Life to the Full can provide greater access, preference, and choice to evidence-based interventions for Māori experiencing low mood.

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"Hapaitia te ara tika pumau ai te rangatiratanga mo ngā uru whakatipu—
Foster the pathway of knowledge to strength, independence and growth
for future generations."

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MĀORI GLOSSARY

Hapū	Sub-tribe – descent from common ancestor
Iwi	Tribe, group, nation
Karakia	Prayer or incantation
Kaumatua	Elder
Kaupapa Māori	Māori approach
Kaupapa Māori Research	Research conducted using Māori knowledge, skills, and principles
Kāwanatanga	Principle of governance
Koha	Gift or contribution
Kohanga reo	Preschool operating under Māori custom
Kura kaupapa	Primary school operating under Māori custom
Manaakitanga	The process of showing respect, generosity and care for others
Manaaki	Respect, generosity, and care for others
Māori	Indigenous people of Aotearoa/New Zealand
Marae	Gathering and meeting place
Pākēhā	Non-Māori
Rangatiratanga	Principle of self determination
Rūnanga	Tribal council
Taha Hinengaro	Mental wellbeing
Taha Tinana	Physical wellbeing
Taha Wairua	Spiritual wellbeing
Taha Whānau	Social wellbeing
Tangihanga	Funeral proceedings
Te Ao Māori	Māori World View
Te reo	Māori language
Tikanga Māori	Māori customs/protocol
Wairua/tanga	Spirituality
Whakapapa	Genealogy
Whakawhanaungatanga	The process of establishing relationships, Relating well to others
Whānau	Family group
Whanaungatanga	A relationship through shared experiences and working together – sense of belonging

*Definitions taken from Te Aka Māori Dictionary

ABBREVIATION GLOSSARY

-2 LL	Model goodness of fit
BP	Between-Person
CAU	Care as usual
IS	Initial Status
LMLM	Longitudinal Multilevel Modelling
M	Mean/Average
MADD	Mixed anxiety and depression disorder
MAR	Missing at Random
MCAR	Missing Completely at Random
MDD	Major Depressive Disorder
MLM	Multilevel Modelling
Model A	Unconditional Means Model for low mood
Model B	Unconditional Growth Model for low mood
Model C^1	Multilevel modelling for low mood using the Q-Q-LES-Q-SF as a predictor
Model C^2	Multilevel modelling for low mood using the CORE-10 as a predictor
n	Sample size
NHS	National Health Service
NICE	National Institute for health and Care Excellence
ODLM	Overcoming Depression and Low Mood
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
PHARMAC	Pharmaceutical Management Agency
PHQ-9	Patient Health Questionnaire-9
PWP	Psychological Wellbeing Practitioner
Q-LES-Q-SF	Quality of Life Enjoyment and Satisfaction Questionnaire - Short Form
r	Bivariate Correlation
R^2	The coefficient of determination
RCT	Randomised Control Study
ROC	Rate of Change
SD	Standard Deviation
SPARX	Smart, Positive, Active, realistic, X-factor Thoughts
UK	United Kingdom
US	United States
VCP	Video Conferencing Psychotherapy
WP	Within-Person

$\gamma 00$	Fixed effect for Initial Status
$\gamma 01$	Fixed effect for Q-LES-Q-SF
$\gamma 02$	Fixed effect for CORE-10
$\gamma 10$	Fixed Effect for Rate of Change
$\gamma 11$	Fixed Effect for Q-LES-Q-SF x Time
$\gamma 12$	Fixed Effect for CORE-10 x Time
$\sigma^2 01$	Covariance
$\sigma^2 1$	Between person Time Variance
$\sigma^2 O$	Between Person Intercept Variance
$\sigma^2 \varepsilon$	Within Person Residual Variance
χ^2 Change	Chi-squared change statistic

CHAPTER 1: DEPRESSION A GLOBAL CRISIS, NEW ZEALAND'S RESPONSE TO MENTAL HEALTH IN THE CONTEXT OF MĀORI MENTAL HEALTH

Chapter Overview

This chapter introduces the growing problem of common mental health disorders and the impact of depression from a global, national, and Māori level. Government obligations and responsibilities to meet the conditions set out in Te Tiriti o Waitangi (1840) and the impact of colonisation provides historical background and supports additional ethical considerations when working with Māori.

Mental Health a Global Problem

Depression is considered to be a leading cause of disability in the world affecting around 5 percent of the adult population (World Health Organisation, 2017, pp. 160-161). Common mental disorders such as anxiety and depression have increased globally by 50 percent since 1990 (World Health Organisation, 2016). Additionally, world crises such as the COVID-19 pandemic in 2020, have impacted the rates of depression by approximately 27.5 percent (Daly & Robinson, 2022).

The impact of depression has a significant economic and social burden, for example, in 2016, the global economic impact of common mental health disorders (i.e., depression and anxiety) was estimated to be around one trillion US dollars, a cost that is projected to increase substantially by 2030 (Chisholm et al., 2016). Depression may lead to poor physical health, mental distress, breakdown in relationships, poverty, incarceration, discrimination, prejudice, and premature death or suicide (World Health Organisation, 2021a). However, the World Health Organisation (2016, para. 4) states that "returns on investment in treatment far outweigh the costs". A cost-to-benefit analysis found a return of four dollars (USD) for every one dollar (USD) invested in treating depression and anxiety (Chisholm et al., 2016; World Health Organisation, 2016). Studies by Clark (2011) and Layard, Clark, Knapp, and Mayraz (2007) also found similar findings when reviewing the impact of increasing access to psychological therapies in the UK in which remuneration of the cost was mainly on the basis of an individual returning to the labour force, and reductions in medical and welfare costs (Clark, 2011; Layard et al., 2007). Despite this, access to services and cost-effective treatment remains inadequate with up to 35 to 50 percent of people in high-income

countries receiving no treatment for mental health disorders (World Health Organisation, 2021b).

The global burden and prevalence of common mental health disorders are challenging across many levels such as social, economic, clinical, and public health (World Federation for Mental Health, 2012). In a collaborative effort to combat the escalating burden of mental health disorders and the impact on quality of life, the World Health Assembly endorsed the Comprehensive Mental Health Action Plan 2013-2020 (World Health Organisation, 2013) which provides a framework to ensure access to quality and affordable care for mental health. This has recently been revised and updated from 2013 to 2030 (World Health Organisation, 2021b).

The action plan outlines well-defined and evidence-based strategies founded on four main objectives in which this study aligns with objectives 2, 3 and 4:

1. More effective Leadership and governance for Mental Health.
2. The provision of comprehensive, integrated mental health and social care services in community-based settings.
3. The implementation of strategies for promotion and prevention; and
4. Strengthened information systems, evidence, and research.

(World Health Organisation, 2021b, p. 5)

In conjunction with the Comprehensive Mental Health Action Plan 2013-2030 (World Health Organisation, 2021b), Member states of the World Health Assembly (including New Zealand), agreed to make comprehensive and coordinated efforts at a national level to,

> *"…develop and strengthen comprehensive policies and strategies that address the promotion of mental health, prevention of mental disorders, and early identification, care, support, treatment and recovery of persons with mental disorders".*
>
> *(World Health Assembly 65, 2012, p. 3).*

In the context of this study these background documents highlight the growing burden and rise in mental health disorders globally. The increasing burden of mental

health disorders worldwide also highlights the discrepancy in service delivery need versus demand; indicating that more needs to be done in order to manage mental health. These reasons, highlight a need to explore, evaluate, and provide evidence-based programmes that can be delivered to the masses to alleviate or manage the increasing burden of mental health, specifically those challenged by depression.

New Zealand in Context

The cost of mental illness and addiction in New Zealand is around 5 percent of the gross domestic product (Ministry of Health, 2017). Exploring the prevalence of mental illness, 1 in 5 adults are diagnosed with a mood or anxiety disorder per year (Ministry of Health, 2021a). The Ministry of Health (2021b) estimates that 17 percent of the total population or 700,000 people were affected by depression over the 2020/21 period. Compared with 2019/20 the data indicates an increase of 30,000 with in a 12-month period (Ministry of Health, 2019). Exploring gender-based differences females experienced higher rates of prevalence compared to males, 21.4 percent, and 12.5 percent respectively (Ministry of Health, 2021c).

Psychological distress has a strong link with common mental health disorders suggesting that people currently experiencing prolonged psychological distress have a high risk of having or developing a common mental health disorder (Arvidsdotter, Marklund, Kylén, Taft, & Ekman, 2016; Hobbs, Kingham, Wiki, Marek, & Campbell, 2021; Krynen, Osbourne, Duck, Hokamau, & Sibley, 2013). Psychological distress represents stress and demands of daily living that are associated with fluctuations in mood and may lead to emotional suffering (American Psychological Association, 2022; Arvidsdotter et al., 2016). The prevalence of psychological distress affects approximately 9.6 percent or 397,000 adults in New Zealand annually (Ministry of Health, 2021d).

Māori Mental Health: A Background

Māori are the indigenous people of New Zealand and make up approximately 17.1 percent of the population. Māori are at significantly higher risk of developing depression with statistics from the Ministry of Health (2021e), indicating that Māori are 1.25 times more likely than non-Māori to be diagnosed with a depressive disorder. In the period of 2020/21 depression was prevalent in approximately 20.6 percent of the Māori population or 122,000 (Ministry of Health, 2021f). In addition, the prevalence of anxiety has more than doubled over the last 10 years from 6.6 percent in 2011/12 to

17.4 percent in 2020/21 (Ministry of Health, 2021g), in which Māori are 1.39 times more likely to be diagnosed with an anxiety disorder compared to non-Māori. Psychological distress was also high for Māori, 15.9 percent compared to the total population mean of 9.6 percent (Ministry of Health, 2021h). These statistics are likely to be a significant underestimation with Māori having the highest rate of undiagnosed depression, 30 percent higher compared to all other ethnic groups (Patterson et al., 2018). Furthermore, Māori females are more likely to experience higher rates and prevalence of depression, anxiety, and psychological distress compared to Māori males and non-Māori (Ministry of Health, 2021c).

Since the early 1800's Māori have been subjected to various colonial practices for example, systemic racism (Native Schools Act, 1867), land confiscation (Suppression of Rebellion Act 1863; Native land act, 1865), and systemic breakdown of cultural identity through assimilation practices (Tohunga Suppression Act, 1907; Anaru, 2011; Turner, 1999). Consequently, Māori disproportionately experience socio economic inequality such as poverty, unemployment, high incarceration, suicide, disability, and mental health (Chapple, 2000; Department of Corrections, 2022; Ministry of Health, 2018; Office of the Chief Coroner of New Zealand, 2021). A significant proportion of Māori live in the most deprived areas across New Zealand, in which deprived groups are three times more likely to experience psychological distress, further increasing the probability of developing a mental disorder (Atkinson, Salmond, & Crampton, 2014; Ministry of Health, 2018).

Historical records indicate that Māori were not always disproportionately affected by mental illness. Research by Beaglehole and Beaglehole (1946) found that the prevalence of mental illness within Māori communities was approximately a third of Pākēhā (non-Māori), suggesting that culture was a protective factor. However, several significant changes such as urbanisation in the 1950's and economic crisis in the 1970's, have led to cultural isolation and high unemployment, weakening protective mechanisms, and increasing the risk to mental illness and substance abuse (E. Cooper & Wharewera-Mika, 2011; Kingi, 2005; McClintock, Mellsop, & Kingi, 2011).

Due to dissatisfaction with mainstream mental health services, Māori established Kaupapa Māori mental health and addiction services in the 1980's (Kingi, 2005). This indigenous informed service utilises local hapū and iwi to deliver a Māori and

community-driven mental health service (Ministry of Health, 2012). Within these services, mental health is viewed within a broader context of health and wellbeing (such as Te Whare Tapa Whā; Durie, 1982) that better aligns with cultural views, values, and practices (Matatini, 2015). Furthermore, the New Zealand government recently made changes to health system and established the (Māori Health Authority, 2022), which works bilaterally with Health New Zealand and the Ministry of Health in partnerships to transform the health system to meet the needs of Māori. This includes increasing choice, and access to evidence-based psychotherapy to improve and maintain Māori mental health (Health and Disability Commissioner, 2018b; Māori Health Authority, 2022; Patterson et al., 2018). At the core of the transformation of the health system is Te Tiriti o Waitangi, and the integration of the treaty principles of partnership, protection, and participation (Māori Health Authority, 2022).

Te Tiriti o Waitangi in Mental Health: Protection, Partnership, and Participation

In 1840 an agreement was signed by Māori and the British Crown and is known as Te Tiriti o Waitangi. Although the treaty partnership in principle was supposed to protect Māori and provide access to certain rights, historically it was used to justify colonisation practices that have negatively affected Māori. However, in modern times the government has made steps to redress injustices and meet their obligations. This led to the adoption of five main principles (kāwanatanga, rangatiratanga, equality, cooperation, and redress) which provide guidance and obligations in government decision-making (Hill, 2010). Adaptation, based on the spirit of the principles of Te Tiriti o Waitangi, have been made to better align with Māori needs in health and disability services. A report by the Waitangi Tribunal (2019) outlines these adaptations adopted by the Ministry of Health.

These principles outline a commitment to improving health equity for Māori, access to effective treatment and co-design of health and disability services (Waitangi Tribunal, 2019). However, available options to effective psychotherapy based treatment for depression is limited in which there is one efficacy studies for Māori in Cognitive Behavioural Therapy (S. T. Bennett, 2009). In relation to the current study, research exploring evidence-based psychotherapy for Māori is needed, however consideration of the appropriateness of the treatment in regard to cultural acceptability, should also be

considered (S. T. Bennett, 2009; Glover & Hirini, 2005; Pomare, 2015; Schraufnagel, Wagner, Miranda, & Roy-Byrne, 2006; Shepherd et al., 2015).

Kaupapa Māori Research and Ethics

The commitment of the New Zealand government to Te Tiriti o Waitangi (1840), worldwide recognition of indigenous self-determination (known as the United Nations Declaration on the Rights of Indigenous Peoples (United Nations, 2007) and cultural revitalisation (e.g., kohanga reo, kura kaupapa) influenced the need for Kaupapa Māori research (KMR) (Walker, Eketone, & Gibbs, 2006). KMR was developed to challenge western hegemony (Pihama, Smith, Taki, & Lee, 2004; G. H. Smith, 1997), reclaim Māori authenticity, validity of knowledge, legitimacy of cultural aspirations (Bishop, 1999; Cram, 2009; G. H. Smith, 2000), and control over the creation of knowledge (Bishop & Glynn, 1999; L. T. Smith, 2021; Walker et al., 2006). Māori theorists have proposed KMR principles which outline cultural protocols that should be considered when undertaking research with Māori (Pihama, 2001; Pohatu, 2013; G. H. Smith, 1990, 1997).

These principles propose a Māori approach that situates Māori culture as the norm and uses Māori tikanga processes to guide research practices (such as whakawhanaungatanga, manaaki, karakia) (Mane, 2009; Pihama et al., 2004; G. H. Smith, 1990). KMR also attempts to resolve suspicion and restore confidence of whānau, hapū and iwi brought about from historical misrepresentation, colonialism, and political agenda by allowing Māori to reclaim power and control over knowledge and resources (Bishop, 1999; Cram, 2017; Haitana, Pitama, Cormack, Clarke, & Lacey, 2020; L. T. Smith, 2005).

The transformative nature of KMR to bring about systemic change has a central role in mental health (Haitana et al., 2020). As part of a transformative paradigm to mental health, Haitana and others (2020) suggest incorporating approaches that privilege Māori voices and their experiences with mental health services. In this way the user is situated as an expert in which their commentary can be used to provide considerations in the design (e.g., adaptation) and delivery (e.g., barriers) of mental health services and resources (Bishop, 1999; Haitana et al., 2020; Mane, 2009). This also advocates a bottom-up approach to inform a top-down mental health system and aligns with New Zealand's Health Research Strategy 2017-2027 to include top-down (e.g.,

researcher) and bottom-up (e.g., consumer) research initiatives (Haitana et al., 2020; Ministry of Business Innovation and Employment & Ministry of Heath, 2017).

In regard to Māori research, Linda Smith (2021) situates the principles of Tino rangatiratanga (self-determination) and Te Tiriti o Waitangi as mechanisms to validate Māori research priorities and participation by Māori in research. In this way, the topic of research should align with priorities for Māori directed to areas of need like health and education which Linda Smith (2021) considers crisis domains and requires more immediate action. Therefore, by considering the transformative and beneficial approach to KMR, the effectiveness of a western derived intervention may be explored as a short-term intervention strategy whilst resources are developed utilising the insights from consumers with the aim of improving the effectiveness (e.g., efficacy, cultural acceptance) of the intervention, in a way that better aligns and reflects Māori ways of knowing and being.

Equally important to KMR principles are the ethical considerations to ensure cultural safety for Māori. Ethical considerations developed by psychology researcher Smith (1999) and Cram (2001) are known as the Community-Up values. The Community-Up values advocate respect for how Māori choose to meet and to allow them to create the terms of that interaction. The values emphasise the importance of face-to-face interaction particularly prior to undertaking research and to develop understanding by listening before speaking. The understanding and use of cultural values such as Manaaki (generosity, hospitality, care) whanaungatanga (establishing relationships) should be used to create a collaborative space whereby the researcher takes a position as a learner with the intent to give back (e.g., results) to participants and wider community. The Community-Up values imbue caution and awareness of the political and social implication of the research and obligation to ensure cultural safety is a priority. Finally, researchers should be respecters of custom and maintain the mana or dignity of persons, and as a researcher or expert be willing to share your knowledge with humility (Cram, 2001; L. T. Smith, 1999).

Cultural safety and research guidelines like KMR and the Community-Up approach provide a research framework for Māori research and participation. KMR is also flexible and should be adapted as necessary (Pihama et al., 2004). This is prudent given that Māori are not a homogenous group and differences may vary significantly

between and across whānau, hapū, and Iwi groups throughout New Zealand (Herbert, 2001). Durie (1994) categorises Māori identity into three cultural subgroups: Culturally Māori, Bicultural and Marginalised. Those who are culturally Māori likely grew up in the Māori world, speaking te reo (or learnt later in life), understand Māori tikanga, and whakapapa (genealogy, lineage, descent, origins). Bicultural Māori are those who are able to navigate Māori and Pākēhā spaces effectively, and marginalised are those who find it difficult to navigate in both Māori and Pākēhā worlds (Durie, 1994). Other typologies, theories and models by Davies, Elkington, and Winslade (1993), McIntosh (2005), J. Williams (2000), Houkamau and Sibley (2010), and Rata (2015) have attempted to conceptualise Māori identity. The various studies also highlight the heterogeneity and fluidity of Māori identity. Therefore, in consideration of the heterogeneity of Māori identity the premise for participation for this study is based on those who are Māori by descent.

Depression: Epidemiology

A Major depressive disorder (MDD) is a mood disorder that often leads to impaired emotional and physical functioning (American Psychiatric Association, 2017) with the onset of depressive disorders typically occurring before the age of 18 but also prevalent throughout the life span (Copeland et al., 2013). Symptoms may include:

Core symptoms

- Depressed mood (i.e., sad, empty, hopeless)
- Diminished interest or pleasure

Somatic symptoms:

- Loss of appetite and weight loss
- Sleep disturbance
- Marked psychomotor agitation
- Fatigue or loss of energy

Other symptoms:

- Diminished ability to think and concentrate
- Feelings of guilt or worthlessness
- Suicidal ideation without specific plan

(American Psychiatric Association, 2013, pp. 160-161)

A formal diagnosis using the Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-5; American Psychiatric Association, 2013), must include five of these symptoms including either a depressed mood or loss of interest or pleasure and must be present most days over a two-week period with marked impairment in areas of daily functioning (e.g., social, and occupational) (American Psychiatric Association, 2013).

Depression can be classified along a continuum of severity in which Ayuso-Mateos and Lopez-García (2012) suggest is an important consideration due to the close relationship with severity and treatment management outcomes (e.g., probability of recovery, duration, and risk of suicide). Classification systems such as the DSM-5 differentiate severity by mild, moderate, and severe (American Psychiatric Association, 2013). Despite this, Tolentino and Schmidt (2018) highlight that there is no general consensus of severity specifiers based on the number of symptoms. However, Hasin and others (2018), suggest the following severity specifiers 5 symptoms (mild), 6 to 7 symptoms (moderate) and 8 to 9 symptoms (severe).

Another way to determine severity is through the use of psychometrics such as the Patient Health Questionnaire 9 (PHQ-9; Kroenke, Spitzer, & Williams, 2001) and the Beck's Depression Inventory-2 (BDI-II; A. T. Beck, Steer, & Brown, 1996) which have been used to determine cut off scores regarding mild, moderate, and severe levels of depression (Lopez, Rees, & Castro, 2014; Montagu, 2015; National Collaborating Centre for Mental Health, 2010). To this end depression severity and treatment is not clear cut with an absolute threshold.

Research by Solomon, Haaga, and Arnow (2001) also suggest that sub threshold or depressive symptomology that falls below official criteria (< 5) should be considered as part of the depression continuum. This is because people with sub threshold symptoms are at risk of developing MDD (Eaton, Badawi, & Melton, 1995; Fergusson, Horwood, Ridder, & Beautrais, 2005; Lewinsohn, Solomon, Seeley, & Zeiss, 2000). Although, people who experience sub threshold depression typically function better under distress, their quality of life in areas such as social, occupational, and increased health issues are significantly impacted (Cuijpers, de Graaf, & van Dorsselaer, 2004; Cuijpers & Smit, 2004; Judd, Rapaport, Paulus, & Brown, 1993). Recent studies by Buntrock and associates (2017) and Moldovan, Cobeanu, and David (2013) showed that

interventions at the sub threshold depression level (including mild) were effective and should be considered an appropriate level of intervention (Kessler, Zhao, Blazer, & Swartz, 1997).

Depressive disorders also have a high comorbidity with substance abuse and anxiety disorders. While substance abuse falls outside the criteria of this study, comorbid depression and substance abuse occur in nearly 33 percent of people diagnosed with MDD (Davis, Uezato, Newell, & Frazier, 2008). The high comorbidity between depression and anxiety suggests an overlap of symptoms, similar neurobiology, treatment response and common aetiology has led to discussion suggesting that depression and anxiety may not be distinct disorders (Barlow, 2004; Nutt, 2004). In this way, researchers suggest that the high comorbidity may be due to the same disorder playing out in functionally different ways (i.e., shutdown vs. overactivity of stress response system). Considering the high comorbidity there is a greater probability that a person presenting with depressive symptoms will also express anxiety symptoms. According to Hirschfeld (2001), the high comorbidity of depression and anxiety is "associated with greater chronicity, slower recovery, increased rates of recurrence, and greater psychosocial disability" (p. 247) and stresses the need for early intervention to reduce the impact of associated risks of comorbid mood disorders.

Depression impacts various aspects of our lives and varies in severity, chronicity, duration, symptoms and can reoccur throughout the life span (Klein, 2010). Without treatment, severe depression may lead to suicide in which 700,000 people worldwide die each year (World Health Organisation, 2021a). Ninety-one percent of those deaths are people suffering with mental illness (J. T. Cavanagh, Carson, Sharpe, & Lawrie, 2003). A major cause of which is depression (approximately 30%) (Bachmann, 2018), in which early recognition and treatment, may offset the trajectory of worsening depression and a decline in symptoms such as suicidality (Kraus, Kadriu, Lanzenberger, Zarate Jr, & Kasper, 2019; Kupfer, Frank, & Perel, 1989; Méndez-Bustos et al., 2019; Rihmer, 2001).

Chapter Summary

The burden of common mental health disorders is a global, national, and cultural crisis that needs to be addressed. Service delivery issues such as trained mental health workers and evidence-based interventions require action on an economic, social, clinical, and public health level to be effective. Without an adequate response, common

mental health disorders such as depression and anxiety may lead to debilitating negative health and social outcomes including premature death. Māori, the indigenous population of New Zealand, are disproportionately affected by mental health. Colonisation practices, systemic racism, and historical trauma have likely exacerbated negative socioeconomic outcomes such as poor mental health. To address these issues additional ethics outlined in the Community-Up and KMR principles should be considered to ensure cultural safety for Māori. Additionally, the New Zealand Government is obligated under Te Tiriti o Waitangi to provide Māori equitable access to evidenced based mental health treatment and care that is culturally safe.

CHAPTER 2: RESPONDING TO MENTAL HEALTH AND THE STEPPED CARE MODEL OF SERVICE DELIVERY

Chapter Overview

This chapter highlights the challenges to increasing access to treatment within New Zealand's mental health services and the response to improve access to evidence-based interventions. One way of addressing service delivery gaps and accessibility to evidence-based interventions is to use high and low intensity interventions within a stepped care model. This approach calls for the emergence of a low intensity practitioner or facilitator that is qualitatively different but complimentary to high intensity. Low intensity practitioner can manage higher caseloads using manualised evidence-based interventions such as low intensity CBT.

Responding to Mental Health

In 2018, the New Zealand government commissioned a report called He Ara Oranga (Patterson et al., 2018), an independent inquiry report into mental health that highlights barriers and recommendations within the mental health sector. Some of the problems highlighted for New Zealand were:

- A lack of access
- Limited options
- Gaps in the services
- Inconsistent fragmented services and variable quality
- Shabby and depressing facilities
- Physical health problems overlooked
- Peer support workers
- Cultural competence and cultural workforce

(Patterson et al., 2018)

In acknowledging the gaps, New Zealand is currently undergoing rapid policy reforms in mental health and setting out strategic frameworks such as The New Zealand Health Strategy: Roadmaps of Action (Ministry of Health, 2016) and legislation such as Pae Ora (Healthy Futures) Act 2022 (New Zealand Government, 2022). Despite New Zealand's high level of awareness surrounding the issues of mental health and policies,

the OECD (2018) identified that structural and institutional developments are still needed to implement successfully. To meet these needs the New Zealand government is contributing 100 million dollars in the development of mental health services over the next four years (Ministry of Health, 2022).

New Zealand is currently working on developing a well-being and recovery-oriented system response to mental health to better focus on early intervention and preventative approaches (Health and Disability Commissioner, 2018a). Over the last 10 years or so there has been a push in New Zealand to widen the access to evidence-based psychotherapies using guided and unguided self-help resources, such as Beating the Blues (http://www.beatingtheblues.co.nz), SPARX (Merry et al., 2012), Overcoming depression and low mood (Montagu, 2015; Scheibmair, 2010), and Living Life to The Full (Forman, 2015; Lee, 2014; Martyn, 2017) (see chapter 4). However, the data on the effectiveness of these treatment options for Māori is lacking in the literature.

While people can currently self-refer to mental health services it is predominantly gate kept by General Practitioners (GP) and largely restricted to the most severe mental health patients (top 3%) with a high prevalence of prescription medication (i.e., antidepressants) to manage mental health disorders (Health and Disability Commissioner, 2018a). The Pharmaceutical Management Agency (known as PHARMAC, 2022) reported that in 2020, 559,255 people were dispensed antidepressants. This figure should be viewed in respect that antidepressants are also prescribed for other health issues such as anxiety and sleep disorders. Moreover, over the past 10 years or so, mental health related medicine has risen by 50 percent (Health and Disability Commissioner, 2018a). This also highlights the dependence of pharmaceuticals over other forms of treatment and justifies the need to increase access of alternative evidence-based treatments such as psychotherapy. Furthermore, a recent review of antidepressants specifically serotonin reuptake inhibitors found no empirical evidence between lowered serotonin level and depression and brings into question the role of medication (Moncrieff et al., 2022).

Stepped Care Model of Service Delivery

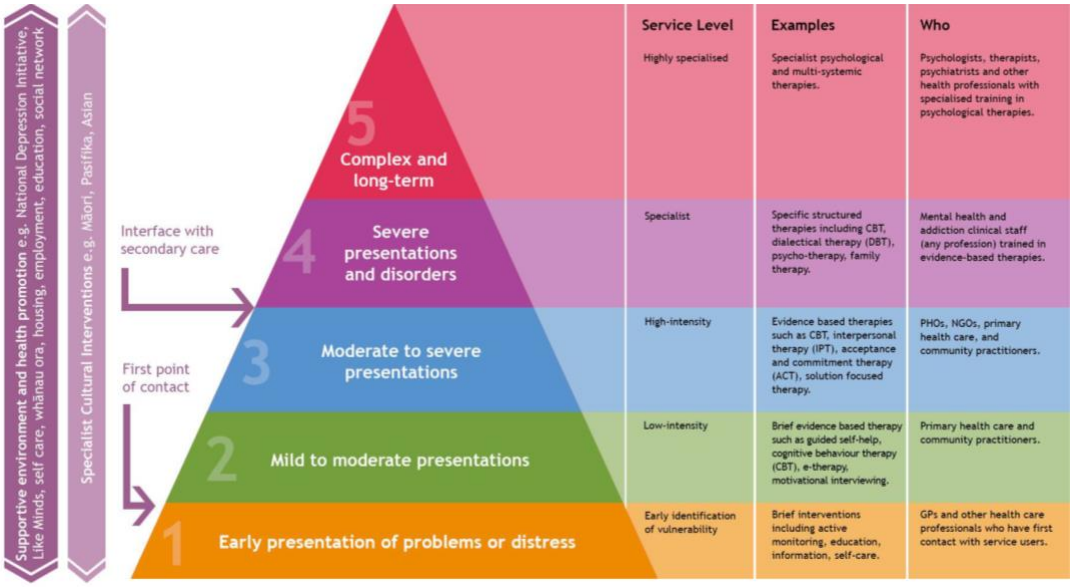
The UK has been particularly pioneering over the last decade or so in developing evidenced based and cost-effective initiatives in mental health care and services; to improve, meet and manage the growing demands of common mental disorders

(Bennion, Hardy, Moore, & Millings, 2017; Clarke et al., 2022; Haarhoff & Williams, 2017; C. J. Williams et al., 2013). Funded by the National Health Service (NHS), the programme aims to improve and increase access to evidenced base psychotherapies to treat common mental health disorders (known as IAPT) in accordance with the National Institute for Health and Care Excellence (NICE) guidelines (Clark, 2011; Gyani, Shafran, Layard, & Clark, 2013; National Collaborating Centre for Mental Health, 2021b).

The stepped care model provides treatment interventions appropriate to severity and complexity of the mental disorder and is useful for managing large numbers of people (Bower & Gilbody, 2005; Green, Barkham, Kellett, & Saxon, 2014; National Collaborating Centre for Mental Health, 2021b; Richards, 2010a). Figure 1 below provides a graphical overview of the stepped care approach to talking therapies adopted by New Zealand (Te Pou, 2016). Although inverted compared to the IAPT model the framework is similar with step two recommending low intensity service level and brief interventions at the primary care level (Ministry of Health, 2017).

Figure 1

An Example of a New Zealand Stepped Care Model



Note. Reprinted from Let's Get Talking by Te Pou (2016). Reprinted with permission.

The stepped care model according to Richards (2010a), is grounded on two main principles:

1. The principle of 'Least Burden'
2. The principle of 'Self-Correction'

The principle of 'least Burden' refers to achieving positive clinical outcomes with the least amount of burden and restriction to both the patient and the health care system. The principle of 'Self-Correction' incorporates into the stepped care approach a feedback system, which regularly reviews patient progress using validated outcome tools, which may necessitate diversion to a different treatment or a step up to more intensive intervention (Bower & Gilbody, 2005). Therefore, Richards (2010a) states that the principles of 'Self-Correction' and 'Least Burden' help by "improving access and efficiency, but without sacrificing effectiveness" (p.25).

Psychological Wellbeing Practitioners: Low Intensity Practitioner vs. High Intensity Practitioner

To manage the finite resources of highly trained professionals and to minimize the burden of the taxpayer funded public health system, the stepped care model distinguishes treatment intervention into high and low intensity modalities (Bennett-Levy, Richards, & Farrand, 2010; Bower & Gilbody, 2005; Clark, 2011; Gyani et al., 2013; NICE, 2009). Prior to the integration of low intensity interventions, most countries offered limited treatment choice for common mental health disorders (Bennett-Levy, Richards, et al., 2010). These treatments normally involved medication, nothing at all, and or long waiting lists for public services (Bennett-Levy, Richards, et al., 2010). To accommodate significant service delivery gaps, the NHS has increased and trained over 6000 psychotherapists between 2008-2014 within the IAPT programme (Green et al., 2014).

The integration of Low intensity psychotherapy led to the emergence of a new type of therapist called a low intensity practitioner later known as Psychological Wellbeing Practitioners (PWP) (Richards, 2010a). PWP require less intensive training (one year postgraduate certificate) and deliver low intensity therapy within step 2 and 3, restricting high intensity therapists to care for more severe and complex mental health problems (Haarhoff & Williams, 2017; Richards, 2010a).

The role of a PWP has been likened to that of a coach, educator, supporter and while it has a lot of similarities to high intensity therapy, Richards and Whyte (2011) describe the role as "qualitatively different" (p. 7) for example, treatment is highly manualized, larger numbers of clients, collection of measures at every session for use in

individual patient management, feedback, progress and supervision (Haarhoff & Williams, 2017; Richards & Whyte, 2011).

PWPs are integrated into the IAPT programme is pivotal to increasing access to evidenced-based psychotherapies within a stepped care model (Richards & Whyte, 2011). For example, in a typical year a high intensity practitioner such as a clinical psychologist has a caseload around 60 to 80 people where as a PWP caseload is between 175 to 250 people per year (Department of Health, 2008; Golden, 2011). However, regardless of the effectiveness and benefit of low intensity interventions to increasing access and availability, coordination between high and low intensity services are essential to providing appropriate and tailored care (National Collaborating Centre for Mental Health, 2021b; Richards & Farrand, 2010). Therefore, low intensity interventions do not set out to make high intensity therapy redundant or heralded as a panacea, but together these modes of therapy can achieve a better outcome for the consumer (National Collaborating Centre for Mental Health, 2021b). This means that a person using a low intensity service can step up, down or simultaneously use multiple services as needed and appropriate to their needs (Bower & Gilbody, 2005). Furthermore, the inclusion of PWP within the IAPT stepped care programme enables access to treatment for 75 percent of people within six weeks of a referral being made (National Health Service England, 2015).

Programme Facilitator and Support Person

An advantage of low intensity programmes such as living life to the full (LLTTF) is that it can be implemented by non-clinicians such as programme facilitators and support workers (Living Life to the Full, 2022) whose primary role is to support and monitor progress, assess risk and safety, and motivate or mitigate issues preventing completion (C. J. Williams, 2013). Due to the highly manualised nature of CBT and access to guidebooks (e.g., Bennett-Levy, Farrand, et al., 2010; Greenberger & Padesky, 1995; C. J. Williams, 2013; C. J. Williams & Chellingsworth, 2010) and training manuals (e.g., P. Farrand, 2020), a wider range of people once trained and competent are able to provide support and increase the effectiveness and delivery of evidence-based psychotherapy. This also allows those already working in the health, social and volunteer sector to be trained to maximise the effectiveness of programmes such as LLTTF (C. J. Williams, 2013).

Criticisms of Stepped Care

Overall, the stepped care model is not without criticism, however, the benefits of stepped care model within mental health services is one way that has been overall successful compared to care as usual (CAU) in increasing access, availability, choice and reducing the burden of mental health (Firth, Barkham, & Kellett, 2015; Gyani et al., 2013; Ho, Yeung, Ng, & Chan, 2016). Early estimates for the effectiveness of the stepped care approach found a recovery rate between 40 and 60 percent (Firth et al., 2015). Ho and others (2016), concluded that stepped care is a viable an effective treatment system compared to care as usual, because of the system's ability to respond to high demand with limited resources. Stepped care approaches appear to be efficacious in providing access to effective treatment across a range of disorders for example, depression (Firth et al., 2015; Ho et al., 2016), anxiety (van der Leeden et al., 2011; Wuthrich et al., 2021), psychological distress (Krebber et al., 2016), personality disorder (Grenyer, Lewis, Fanaian, & Kotze, 2018), insomnia (Savard et al., 2021), and obsessive-compulsive disorder (Tolin, Diefenbach, & Gilliam, 2011).

However, the cost effectiveness of a stepped care approach compared to CAU appears inconsistent (Clark et al., 2009; Steen, 2020). Several studies exploring the cost effectiveness of the stepped care model within the IAPT for depression and anxiety have been conducted with mixed results. An initial review of the Doncaster pilot programme (Mukuria et al., 2013) suggested that IAPT is not cost effective incurring higher cost than comparative non-IAPT services, however, the costs are within the upper NICE threshold of £30,000 per Quality-adjusted life year (QALY) gained. Radhakrishnan and associates (2013) also conducted a cost analysis of IAPT using treatment activity data and gross financial information from five primary care trusts in the East of England region. The study concluded that although slightly higher than proposed estimates (i.e., £ 750; Layard et al., 2007) of the IAPT programme, the current costs support the IAPT model regarding cost to benefit. Furthermore, an analysis of the cost of completion by Steen (2020) was slightly lower than original projections, £646 per person over the 2016-2017 period. However, Steen (2020) argued that the costs substantially increased after including all referrals not just completed, in which due to high attrition rates the cost of treatment within the IAPT was inefficient. The economic viability of the IAPT service and psychotherapy stepped care models appears promising but inconsistent, in which costs

are likely to improve as services further refine systems and training (Clark et al., 2009; Ho et al., 2016). However, transparency and accountability should be made available to the public (Clark, 2018).

Other countries such as the Netherlands (Van't Veer-Tazelaar et al., 2010), Australia (Meuldijk & Wuthrich, 2019; Stiles et al., 2019) and Canada (Yan, Rittenbach, Souri, & Silverstone, 2019) found a stepped care approach to be cost effective. Studies in New Zealand have attempted to evaluate the efficacy of stepped care (Bunting, 2011; Earl, 2010), evaluations of the cost effectiveness of stepped care remain unaddressed.

Although stepped care may be a viable option for addressing service issues, attitudes, and perceptions to mental health within the general population continue to be significant barriers for accessing and dropping out of treatment (Mojtabai, Chen, Kaufmann, & Crum, 2014). According to World Health Organisation data obtained by face-to-face interviews across 24 countries, the most common reasons for the lack of help seeking was 'low perceived need' and for dropping out of treatment was 'ineffectiveness of treatment' and 'negative experiences with treatment providers' (Andrade et al., 2014). Also, attitudes to not seeking help were more prevalent for people with mild to moderate mental health disorders and found to be better predictors for the lack of help seeking than structural barriers (Andrade et al., 2014).

Chapter Summary

In summary, the New Zealand Government has acknowledged and introduced policy reforms to improve mental health services and respond to the mental health crisis. The stepped care model is a service delivery approach that has been effectively implemented in countries such as the UK. The stepped care model matches clients according to severity and is founded on the need to provide greater access, availability, and choice to psychotherapy. This approach requires the need for a low intensity practitioner who can accommodate a greater caseload of people who are experiencing mild to moderate common mental health disorders. This is primarily achieved using self-help materials such as CBT books and internet applications, whereby the low intensity practitioner takes on facilitation and monitoring roles. The inclusion of low intensity practitioners and facilitators allows more specialised roles such as psychologist to focus on more complex mental health presentations.

CHAPTER 3: PSYCHOTHERAPY AND THE EVOLUTION OF CBT

Chapter Overview

To widen access to evidenced based interventions, psychotherapy is put forward as an alternative to treatment as usual which overuses pharmaceutical interventions. This chapter outlines the theoretical underpinnings, principles, effectiveness, and difference between high and low intensity CBT. Other factors such as the therapeutic alliance are also acknowledged as important features influencing treatment outcome. Cross-cultural considerations are given particularly in the context of Māori and the challenges of using generic unadapted CBT programmes. This chapter concludes by exploring the nature of change and predictors of treatment outcome.

Psychotherapy

Psychotherapy, psychological therapy, or talking therapies are generic interchangeable terms used to denote a treatment approach whereby wellness is achieved by the "remediation of mental health problems and symptoms by structured interventions" (Department of Health, 2001, p. 8). Psychotherapies can be delivered in a range of formats (e.g., one to one, group, couples, bibliotherapy, and computer based) and approaches (e.g., Psychodynamic, Behaviour, Cognitive, and Humanistic therapy) that guide "…the process of understanding clients and their problems and developing solutions (American Psychological Association, 2009, para 1).

A meta-analysis by Cuijpers (2017), found that psychotherapies for adult depression had a moderate to large effect size compared to control conditions (*d* = .5–.8). However, Cuijpers, Karyotaki, Reijnders, and Ebert (2019) argued that the effect of psychotherapy is overestimated and found that when controlling for high quality studies the effect size was small (*g* = .2 to .3) and not as effective as previously thought. This was disputed by Munder and others (2019) who reanalysed the data and found that psychotherapy was more effective than waitlist controls (i.e., no treatment) (*g* = .70*)* and care as usual (*g* = .31*)*. A recent review of the UK IAPT service by Wakefield and others (2021) found a large effect size (*d* = .87) between pre and post treatment for depression. This suggests that psychotherapies for treating common mental health disorders such as depression and anxiety are effective although heterogeneity regarding the effectiveness remains.

According to Gyani and associates (2013), people undergoing NICE recommended treatments have a higher probability of recovery compared to non-recommended treatments. The overall average reliable recovery index for psychotherapy within the UK IAPT service was between 40.3 percent and 56 percent (Chan & Adams, 2014; Clark et al., 2009; Gyani et al., 2013). The overall reliable recovery index was determined by pre-post change analysis using clinical cut off on the PHQ-9 (less than 4) and 7-item Generalised Anxiety Disorder Scale (GAD-7; Spitzer, Kroenke, Williams, & Löwe, 2006)(less than 5) (Gyani et al., 2013). Additionally, Gyani and others (2013) found a reliable deterioration of symptoms of 6.6 percent and a 63.7 percent reliable improvement over the total study population (*n* = 19,395) and 40.3 percent post treatment.

It should also be noted that logistic regression analyses by Gyani and associates (2013) showed no significant difference in recovery rates for depressive episode between CBT and Counselling modalities. However, patients receiving treatment for mixed anxiety and depressive disorder (MADD) were 1.69 times more likely to recover using CBT compared to Counselling (Gyani et al., 2013). This is important as comorbid depression and anxiety occurs in more than 50 percent of patients and as high as 70 percent and is perhaps one reason for why NICE guidelines recommend CBT for depressive and anxiety disorders over counselling (Hirschfeld, 2001; Middleton, Shaw, Hull, & Feder, 2005; Wu & Fang, 2014). In addition to comparative recovery rates between CBT and Counselling, a NICE systemic review conducted in 2009 by McQueen and Smith (2015) found no clinically significant difference between CBT, interpersonal therapy, and psychodynamic therapy regarding depressive disorders. Additionally, Cuijpers (2017) meta-analysis of psychotherapies found no significant difference in effectiveness between all psychotherapies.

Antidepressants (e.g., Selective Serotonin Reuptake Inhibitors and Tricyclic antidepressants) like psychotherapy have similar results in treating depressive and anxiety disorders (Cuijpers & Gentili, 2017; Cuijpers et al., 2013; Driessen et al., 2020; Gartlehner et al., 2015; Gonçalves & Byrne, 2012; Roshanaei-Moghaddam et al., 2011; Spielmans, Berman, & Usitalo, 2011). Although, a literature review by Hollon (2016) found that psychotherapies (e.g., cognitive, and behavioural therapies) may have an enduring effect that is lacking and possibly impeded by medications.

However, antidepressants can provide effective relief from the symptoms of depression, the benefits largely depend on severity of depressive symptoms in which a small effect size regarding benefits for mild to moderate symptoms of depression were found (Fournier et al., 2010; Stone et al., 2022). Therefore, medication use for mild depression is not recommended by NICE guidelines for depression (Kendrick & Collinson, 2022; Middleton et al., 2005). Notably, as with any prescription medication, side effects (e.g., nausea, diarrhoea, sedation, anxiety, overstimulation, suicide risk) occur in as much as 50 percent of those who use antidepressants and to prevent relapse may require continual use up to 2 years; making antidepressants a less favourable treatment option (Cascade, Kalali, & Kennedy, 2009; Ramic, Prasko, Gavran, & Spahic, 2020). However, studies by Driessen and others (2020) and Zhou and associates (2020) found that antidepressants coupled with psychotherapy such as Cognitive Behavioural Therapy (CBT) and short term psychodynamic were more effective combined.

Providing accessibility and treatment choice has already been stated as a principle of the stepped care approach, but given the choice will people choose psychotherapy? McHugh, Whitton, Peckham, Welge, and Otto (2013) conducted a meta-analysis of 34 studies to assess patient preference for psychological or pharmacological treatment. The analysis found a threefold (0.75; 95% CI: .69 to .80) preference for psychotherapy over pharmacotherapy particularly with women and younger participants. However, the study was unable to determine reasons as to why it was preferred (McHugh et al., 2013). Hanson, Webb, Sheeran, and Turpin (2016) also found similar findings with psychotherapy and guided self-help more preferred over antidepressants and bibliotherapy. Although, a study by Gelhorn, Sexton, and Classi (2011) suggests, patient treatment preference has minimal impact on treatment outcome but patients are more likely to initiate, persist, and adhere to treatment and develop a stronger therapeutic relationship (Swift, Callahan, Cooper, & Parkin, 2018; Windle et al., 2020).

The therapeutic relationship or alliance is considered to be fundamental to effective psychotherapy (A. T. Beck, Rush, Shaw, & Emery, 1979). Krupnick and associates (2006) broadly define the therapeutic alliances as the "… collaborative bond between therapist and patient" (p. 269). The study explored the relationship between treatment outcome and the therapeutic alliance in psychotherapy and

pharmacotherapy and found that the estimated odds of remission (as measured by the Hamilton Rating Scale for Depression) increased by 13.6 and 17.2 times for every unit of increase in the patient factor alliance and mean total alliance scores on the Vanderbilt Therapeutic Alliance Scale (Krupnick et al., 2006). A meta-analysis undertaken by Flückiger, Del Re, Wampold, and Horvath (2018) of 295 studies (*n* = 30,000) between 1978 and 2017 found a small to medium effect size (*d* = .278 to .579) between the overall therapeutic relationship and treatment outcome. Furthermore, the therapeutic relationship explained approximately eight percent of the variance accounted for (Flückiger et al., 2018; Krupnick et al., 2006). Other studies also found the therapeutic alliance to improve favourable outcome and that establishing this alliance early into therapy led to early symptom change (Arnow et al., 2013; Baier, Kline, & Feeny, 2020; Tschuschke, Koemeda-Lutz, von Wyl, Crameri, & Schulthess, 2020).

The therapist effect was also evident in a study by Saxon, Firth, and Barkham (2017) which found that five to eight percent of the variance was explained by the therapist effect in which above average therapists had significantly lower dropout and greater recovery rates (e.g., pre-post change) for completers 78.1 percent compare to the average of 61 percent. Furthermore, 60 percent of treatment completers recovered compared to 12 percent, and also highlights the benefits of completing therapy (Saxon et al., 2017). Regarding dropout rates, a meta-analysis by A. A. Cooper and Conklin (2015) found the weighted dropout rate for individual psychotherapy for depression to be around 20 percent, similar to other studies such as Linardon, Fitzsimmons-Craft, Brennan, Barillaro, and Wilfley (2019); and Olfson and associates (2009).

Understanding the characteristics that underpin and promote therapeutic alliance and therapist effect is important to increasing the effectiveness of treatment outcome (Bennett-Levy, 2019). Norcross and Lambert (2018) who conducted a meta-analysis explored evidenced based relationship and interpersonal characteristics. Norcross and Lambert (2018) identified nine evidence-based elements for example: Alliance, collaboration, goal consensus, empathy, positive regard, positive affirmation, and collecting and delivering client feedback. Furthermore, Norcross and Lambert (2018) found that adapting the relationship according to patients preference, culture, and spirituality, were as important as the type of treatment and diagnosis.

A systematic review by Amati, Banks, Greenfield, and Green (2018) across five countries (*n* = 34, 778) identified positive predictors for treatment outcome such as married or living with a partner, number of sessions (e.g., 6), socially active patients, treatment credibility and cultural congruence of therapist and patient. Examples of negative predictors included, living alone, social deprivation, baseline severity, physical, and psychological comorbidities. Predictors of no significant impact included, age, education, treatment modality and preferred treatment. Amati and others (2018) also note that the review identified contradictory findings particularly with ethnicity (e.g., negative impact, no significant impact), gender (e.g., preference for female and no significant difference at all) and therapist competence (e.g., positive impact, no significant impact).

Psychotherapies can significantly reduce symptoms associated with mental health disorders (Chan & Adams, 2014; Clark et al., 2009; Driessen et al., 2020; Gyani et al., 2013; Lemmens et al., 2015; McQueen & Smith, 2015; Zhou et al., 2020). But considering the large variance in recovery rates, high dropout rates, and relapse (Cuijpers et al., 2021; Mueller et al., 1999), advances in psychotherapy are much needed (Baier et al., 2020; Cuijpers, 2017). Current psychotherapies need to continually evolve as well as create space for the development of new psychotherapies that are evaluated for efficacy and effectiveness using a myriad of evaluation tools such as observational trials, naturalistic studies, and a shift from a heavy reliance on randomised control trial (RCT) to real world effectiveness (Guy, Loewenthal, Thomas, & Stephenson, 2012; McQueen & Smith, 2015).

Cognitive Behavioural Therapy

According to Kennerley, Kirk, and Westbrook (2016), modern CBT is a system of psychotherapies predominantly based on the cognitive therapy (A.T. Beck, 1967) and behaviour therapy approaches (Wolpe, 1968). CBT incorporates cognitive and behavioural principles, methodologies, and interventions to derive "...a time-sensitive, structured, present-oriented psychotherapy..." (Beck Institute, 2022, para. 1). Although, there are varying forms of CBT approaches (for example Rational Emotive Behaviour Therapy, Dialectical Behaviour Therapy, Acceptance Commitment Therapy) these models are encapsulated under the umbrella of CBT and are better explained as a conceptual paradigm rather than a single approach (David, Cristea, & Hofmann, 2018).

Key Features of Cognitive Behavioural Therapy

Although there are differences in principles, procedure, theoretical background across the various CBT approaches, Dozois, Dobson, and Rnic (2019, p. 4) propose three basic shared propositions:

1. Cognitive activity affects behaviour.
2. Cognitive activity may be monitored and altered.
3. Desired behaviour change may be affected through cognitive change.

Kennerley, Kirk and Westbrook (2016) assert that the basic features of CBT remain consistent across the various CBT approaches. Dobson and Dobson (2009) further add that most CBT approaches are also unified by three fundamental underpinnings:

- Empirical evidence supporting efficacy and effectiveness.
- Behaviour and cognitive theory and science.
- Problem focussed orientation.

Collaboration is another common characteristic of CBT approach that emphasizes a dynamic working relationship between therapist and client to establish common goals (Dattilio & Hanna, 2012; Gautam, Tripathi, Deshmukh, & Gaur, 2020; Wright, 2006). Goal orientated therapy works with the “end in mind”, which allows the client and therapist to establish a “well defined therapeutic plan leading to a …systematic and planful approach to therapy” (Rosenbaum & Ronen, 1998, p. 223). Aligned to goal orientation and collaboration is the view that the client is an active participant, involved in the therapeutic process, agential in conceptualising and understanding mental health issues in context (Hallas, 2014) and where the therapist guides self-insight and understanding through various techniques such as psychoeducation (C. M. Anderson, Hogarty, & Reiss, 1980; Kürümlüoğlugil & Tanrıverdi, 2021; Rigabert et al., 2020), behaviour activation (Lewinsohn et al., 2000; Uphoff et al., 2020), relaxation training (Cooley, Park, Ajilore, Leow, & Nyenhuis, 2022), Problem solving training (Cuijpers, de Wit, Kleiboer, Karyotaki, & Ebert, 2018; D'zurilla & Goldfried, 1971) and the practical implications of applying what is learnt (homework) (Gautam et al., 2020; Kazantzis, Dattilio, Cummins, & Clayton, 2014; Kazantzis, Whittington, & Dattilio, 2010).

CBT has been adapted to a range of disorders that include depression, generalised anxiety disorder, specific phobias, social phobia, obsessive compulsive disorder, post-traumatic stress disorder, Bulimia and some personality disorders and formats such as group, family, and low intensity (Fonagy, 2015). According to NICE (2022) guidelines, CBT is recommended as the first line treatment for depressive and anxiety disorders, but not the only treatment. NICE guidelines also advise the use of Interpersonal Therapy, Behavioural Activation, Behavioural Couples Therapy, Counselling, Psychodynamic and Psychotherapy as alternative options (Kendrick et al., 2022; NICE, 2022).

Low Intensity Cognitive Behavioural Therapy

Low intensity psychotherapies are integral to stepped care because of the ability to increase access, availability, and choice to evidence based interventions on a large scale which helps to ameliorate significant service delivery gaps (Bower & Gilbody, 2005; Lovell & Richards, 2000; National Collaborating Centre For Mental Health, 2021a; Richards, 2010a; Wakefield et al., 2021).

Low intensity interventions are essential to the success of the IAPT programme and is offered alongside high intensity intervention within a stepped care model. Whilst high intensity interventions consist of conventional face-to-face therapy with a practitioner (e.g., psychologist, psychiatrist), Low intensity interventions typically use self-help or guided self-help materials and provide greater access to evidenced based psychotherapies and cost-effective alternatives (Bennett-Levy, Farrand, et al., 2010; Bower & Gilbody, 2005; Chellingsworth, Williams, McCreath, Tanto, & Thomlinson, 2010; Haaga, 2000; Richards, 2010a). In general terms low intensity can be characterized by:

- Fewer sessions;
- More emphasis on self-management;
- The structured and central use of written material as a core strategy, rather than merely an adjunct to therapy;
- Variation in administration methods, such as delivery via the telephone or computer.

(Richards, 2010b, p. 127).

Low intensity interventions are typically targeted at first episode, mild to moderate common mental health problems such as depression and anxiety and are primarily grounded in principles of CBT (Marrinan & Papworth, 2018; National Collaborating Centre for Mental Health, 2011). It should be noted that although low intensity interventions are targeted at mild to moderate common mental health disorders studies are finding this approach to also be effective with severe levels of depression (Bower et al., 2013; Boyd, Baker, & Reilly, 2019; Koivu, Drummond, Battersby, & Cromarty, 2016).

Low Intensity Cognitive Behavioural Therapy (LI-CBT) is the preferred mode and is an empirically supported low intensity psychological approach (Ali et al., 2017; P. Farrand & Woodford, 2013; Grist & Cavanagh, 2013; Richards, 2010b). LI-CBT approaches use CBT principles and approaches that have been dismantled into simplified versions of high intensity approaches (Richards, 2010b).

Papworth and others (2013) outline three distinctive principles of delivery in regard to LI-CBT that differ from high intensity CBT interventions. The first principle is based on efficiency, in which a high volume, focussed and brief therapy approach typically involving 5 to 6 (typically 8 or less), 10 to 30-minute sessions over 6 to 12 weeks (Bennett-Levy, Farrand, et al., 2010; Delgadillo et al., 2018; Papworth et al., 2013). Brevity of LI-CBT is one reason for the emphasized, importance, and skill needed to establish the therapeutic relationship as the therapist shifts from 'CBT expert' to expert in guidance and support. This is primarily because "…CBT now largely resides within the materials, rather than with the therapist" (Bennett-Levy, Farrand, et al., 2010, p. 13). Papworth and associates (2013) suggest that with LI-CBT, the therapeutic relationship is 'triadic' between practitioner, client and CBT materials and is essential to engage with the client and maximize the benefits of low intensity interventions.

The second principle involves the use of alternate formats and technology to facilitate and deliver low intensity interventions (Papworth et al., 2013). Therefore, LI-CBT typically utilises self-help materials and formats such as bibliotherapy, groups and computer programmes. Support can be delivered across different platforms such as telecommunications, email, and face to face (Gellatly et al., 2007) which help to facilitate "… intervention at an accelerated pace" (Papworth et al., 2013, p. 10) and reduce contact time with a therapist (Bennett-Levy, Farrand, et al., 2010). The flexibility

of LI-CBT allows increased access to evidence based psychological interventions that are delivered in a client centred way that suits the individual, such as treatment choice, pace of learning, preference, and within group or individual settings (G. Andrews, Cuijpers, Craske, McEvoy, & Titov, 2010; Papworth et al., 2013).

The third principle of LI-CBT is that it is preventative, seeking to offset the development of severe mental health problems, by intervening early (Papworth et al., 2013). Evidence also suggests that LI-CBT is more effective during the early stages of development regarding mental health disorders (Gregory, Schwer Canning, Lee, & Wise, 2004; Papworth et al., 2013). However, a study by Koivu and others (2016) suggests LI-CBT can be used with severe depression to reduce symptoms. This is also supported by Bower and associates (2013) who conducted a meta-analysis of clients (*n* = 2470) with moderate to severe depression at baseline and found similar clinically outcome to those with low levels of depression. Additionally, targeting waiting lists is one way that LI-CBT has been used to intervene early and according to C. J. Williams and Whitfield (2001) around 50 percent of people on waiting lists will try low intensity interventions. Furthermore Barrera, Torres, and Munoz (2007) found that preventative interventions might reduce depression by up to 50 percent.

Low intensity CBT also considers the language used in self-help materials in which C. J. Williams and Morrison (2010) state that with LI-CBT, a new language was developed to increase accessibility and facilitate learning. This includes style, relevance, and reading age. Prominent self-help CBT books, Mind Over Mood (Greenberger & Padesky, 1995), and Overcoming Depression and Low Mood: A Five Areas Approach (C. J. Williams, 2006), have tried to remove CBT technical jargon with readability scores of 15.4 and 12.6 years respectively (Martinez, Whitfield, Dafters, & Williams, 2008).

A mixed method study by Thompson, Parker, and Cave (2022) explored aspects to successful outcome using LI-CBT. The thematic analysis identified three common factors and two specific factors. The three common factors included insight, (e.g., understanding into their condition; impact of past experiences); talking (e.g., talking through issues; thinking); Therapist qualities (e.g., listening and facilitation, expertise, warmth, and empathy). Specific factors related to skills and activities that helped them to think and respond differently to thoughts and emotions. This suggests that the

therapist remains an important factor in LI-CBT outcomes despite the manualised and structured natures of LI-CBT programmes.

Nature of Change

In order to improve client outcomes, studies have explored the nature of change to identify predictors of success and failure (Lambert, 2013). Research has identified three distinctive shapes for depression such as early rapid response, sudden gains, and the depression spike (Hayes, Laurenceau, Feldman, Strauss, & Cardaciotto, 2007). According to Ilardi and Craighead (1994) early rapid response is characterised by significant decreases in depressive symptoms in which 60 to 80 percent of the total change was found to occur by week four. Saunders and others (2019) found a similar outcome in rapid response by the third session, whereby 40 percent of the variance in treatment outcomes could be explained. Sudden gains are characterised by a large change between a single session and a depression spike is similar to sudden gains but is described by a large increase in symptoms followed by a greater decrease in symptoms (Hayes et al., 2007; Tang & DeRubeis, 1999). The presence of early rapid response, and sudden gains appeared to predict greater treatment outcome in high intensity CBT and guided self-help (L. A. Andrews, Hayes, Abel, & Kuyken, 2020; Delgadillo et al., 2014; Delgadillo et al., 2018; Hayes et al., 2007; Montagu, 2015; Vaz, Conceição, & Machado, 2013). An RCT study by O'Mahen and others (2021) compared the effect of sudden gains between a CBT and Behavioural Activation group. The study found that those who experienced sudden gains tended to have lower PHQ-9 scores at follow-up. Conversely, those who experienced a depression spike tended to have higher PHQ-9 at follow up. These treatment effects were evident at six and 18 months follow-up respectively, suggesting that discontinuous changes may predict better outcomes in the short and long terms (O'Mahen et al., 2021). It should be noted that the study was unable to ascertain the reason for poorer outcomes in the long term for those who experienced a depression spike in the CBT group. The authors speculate suspect naturally occurring factors such as negative life events, and observation of sudden losses may explain the outcome with the CBT group compared to the Behavioural Activation group.

Culture and CBT

CBT has strong Eurocentric underpinnings which emphasises individualism, logic, and rationalisation, which may lack relevance for certain cultural groups who may operate within for example, spiritual belief systems and collectivist cultures (e.g., Māori and American Indian) (Abrams, Hill, & Maxwell, 2019; S. Bennett, Flett, & Babbage, 2008; P. Hirini, 1997; McDonald, Gonzalez, & Sargent, 2019; Wallace, Carlson, & Ohrt, 2021). In order to meet treatment needs and be culturally responsive, adaptation have been made to CBT with promising results (Hays & Iwamasa, 2006). Studies suggest that CBT is effective with minority ethnic and cultural groups for example: Māori (S. T. Bennett, 2009; Mathieson, Mihaere, Collings, Dowell, & Stanley, 2012), Pacifica (Moberg, Niles, & Beermann, 2019), Latino (Aguilera, Bruehlman-Senecal, Liu, & Bravin, 2018; Nelson, Ayers, Sun, & Zhang, 2020), Hispanic (Escobar & Gorey, 2018), African American (Kohn, Oden, Muñoz, Robinson, & Leavitt, 2002; Roland, 2014; E. C. Ward & R. L. Brown, 2015), American Indian (Asher BlackDeer & Patterson Silver Wolf, 2020; Listug-Lunde, Vogeltanz-Holm, & Collins, 2013; McDonald et al., 2019), Indigenous Australian (Bennett-Levy et al., 2014; Titov et al., 2017; Titov, Schofield, Staples, Dear, & Nielssen, 2019), and Asian American (Cheng et al., 2019; Hwang et al., 2015).

Huey and Tilley (2018) compared the treatment effects of adapted and unadapted CBT with Asian Americans (n = 6377) and found a large effect size (d = 1.10, 95% CI: .56, 1.64) compared to unadapted (d = .25, 95% CI: -.13, .62). A systemic review and meta-analysis by Arundell, Barnett, Buckman, Saunders, and Pilling (2021), also found that adapted CBT interventions were more efficacious for symptom reduction in black and minority ethnic groups compared to non-adapted (g = -.43, 95% CI: -.61, -.25).

A recent systemic review and meta-analysis of 15 studies by Anik, West, Cardno, and Mir (2021) also found culturally adapted CBT interventions to be more efficacious in reducing symptoms of depression compared to control treatments (d = -.63, 95% CI: -.87, -.39). There was also some evidence to suggest that the treatment effect was smaller for minority ethnic groups then majority ethnic groups d = .39 (95% CI: -.72, -.05) and d = .82 (95% CI: -1.04, -.59) respectively. Studies like these and others would suggest that adapted CBT programmes maybe more superior to unadapted CBT interventions (Hwang et al., 2015; Miranda et al., 2006), due to the ability to “enhance recruitment, retention, and acceptability” (Pineros-Leano, Liechty, & Piedra, 2017, p. 567).

However, a meta-analysis by Soto, Smith, Griner, Domenech Rodríguez, and Bernal (2018) and Wallace and associates (2021) found inconsistency in results were high, with studies such as Cougle and Grubaugh (2022) and Trevor and colleagues (2006) finding no significant difference in the effectiveness of CBT when accounting for race and or ethnicity. Other studies showed less durable effects and there were inconsistent effect sizes (i.e., small to large) for improvement to suggest that adapted CBT was more effective than non-adapted (Escobar & Gorey, 2018; Hwang et al., 2015; Mathieson et al., 2012; Nelson et al., 2020; O'Donohue & Benuto, 2015; Organista, Muñoz, & González, 1994). Also, adapted CBT programmes vary significantly regarding retention rates, with dropout rates as low as five percent to greater than 50 percent suggesting that adapted CBT intervention may suffer similar rates of attrition to non-adapted CBT (Arnow et al., 2007; S. T. Bennett, 2009; Cheng et al., 2019; Hwang et al., 2015; Mathieson et al., 2012; Organista et al., 1994; Earlise C. Ward & Roger L. Brown, 2015). Additionally, Olfson and others (2009) and Arnow and associates (2007) identified young age, ethnic minority, and socioeconomic disadvantage as predictors of dropout.

A study by S. T. Bennett (2009) evaluated the effectiveness of CBT with Māori with a culturally adapted version. The study was a high intensity manualised CBT programme targeted at Māori adults with moderate to severe depression and incorporated Māori protocols such as processes for engagement, karakia, spirituality, family involvement and metaphors (S. T. Bennett, Flett, & Babbage, 2014). The programme emphasises other Māori practices such as whakawhanaungatanga whereby relationships are established and may require some level of self-disclosure and exploration of whakapapa (S. T. Bennett, 2009, p. 81). Establishing and maintaining relationships is a core tenet of Te Ao Māori essential to establishing the therapeutic alliance and to enhancing treatment gains. S.T. Bennett's (2009) doctoral dissertation found large change effect sizes on the BDI-II and Automatic Thoughts Questionnaire (ATQ-30; Hollon & Kendall, 1980) pre-post treatment (BDI-II; d = 1.623) and pre-treatment to follow-up (BDI-II; d = 1.664). Using the Hua Oranga questionnaire (Kingi, 2002), the study also showed the benefits of Improving functioning in the hinengaro domain (mental; d = 1.053) which had flow on effect in other domains such as tinana (physical; d = .866), whānau (family; d = .769) and wairua (spirituality; d = .683) (S. T. Bennett, 2009). Furthermore, 80 percent (n = 12) of participants reduced their

depressive symptoms by 50 percent or more on the BDI-II. S. T. Bennett (2009) cautions the use of using CBT with Māori given that the therapy was a culturally adapted version delivered by a Māori practitioner and not a generic CBT programme with Māori, thus, limiting generalisability. Furthermore, the study observed a high retention rate of 94 percent in which only one participant dropped out and indicates a high level of acceptability (S. T. Bennett, 2009).

CBT appears to be effective across various cultural groups and maybe be enhanced through cultural adaptations. Consideration for adaptation that may enhance therapy include cultural values, concepts, interpersonal styles, metaphors, content, language, bilingual, ethnic matching; consideration of biological, social, history, roles, concepts, family, spirituality, whakawhanaungatanga, and karakia (Arundell et al., 2021; S. T. Bennett, 2009; Bernal, Bonilla, & Bellido, 1995; Interian & Díaz-Martínez, 2007; Kalibatseva & Leong, 2014; Earlise C. Ward & Roger L. Brown, 2015). Furthermore, Arundell and others (2021) suggest that organisation-specific adaptations may enhance the acceptability and suitability in culturally adapted CBT interventions which may include: Length on intervention, number of sessions and duration, and places of delivery, form, and access. Although, Chowdhary and associates (2014) advocate for cultural adaptation to make them more meaningful and improve acceptability for the given population, there is no baseline study from which to suppose a Māori culturally adapted LI-CBT programme, such as LLTTF (C. J. Williams, 2017), is more or less effective.

Although, evidence can certainly be inferred from studies such as S. T. Bennett (2009) and Mathieson and associates (2012) (see chapter 4), Māori are not a homogenous group and have diverse cultural realities and affiliation, meaning Māori culture may play a large or small role in Māori individuals (Durie, 1995; Durie et al., 1997). Accounting for those who are culturally Māori as those who are fluent in Māori (arbitrary measure), recent estimates are around 23 percent (Stats NZ, 2022), and if being culturally Māori including community participation and support is a protective factor (e.g., connection to whānau, marae, protocols, and Māori worldviews) (P. R. Hirini & Collings, 2005; Kingi, 2005; Muriwai, Houkamau, & Sibley, 2015; A. D. Williams, Clark, & Lewycka, 2018), then the majority who fall outside of that group are at greater risk of poor mental health. These issues highlight the need to deliver a generic unadapted programme (English) to study the effect of LI-CBT on a Māori population, and to

determine a baseline of effectiveness should future Māori adapted LI-CBT programme be developed. In which cultural adaptation should be developed using a bottom-up approach and consider participants feedback and recommendations (i.e., consumer opinions)(Kalibatseva & Leong, 2014; Shepherd et al., 2015). Given this, it is likely that cultural acceptability of the programme maybe limited, however acceptability cannot be assumed and needs to be assessed particularly given the diversity within Māori groups (Shepherd et al., 2015; Titov, 2007). Above all, S. T. Bennett (2009) states that "…Therapy that is responsive to the individuality of the client is a crucial component of effective therapy" (p. 41). Therefore, therapy should consider the unique ethnocultural background and treatment expectations of the individual in order to be responsive and improve effectiveness (S. T. Bennett, 2009; Interian & Díaz-Martínez, 2007; Schraufnagel et al., 2006).

Chapter Summary

Psychotherapy is an umbrella term for talking therapies and is effective at alleviating depression and other mental health disorders. The effectiveness of psychotherapy is comparable to antidepressants and provides another option to treating depression that may have more enduring effects to medication alone. Additionally, combining medication and psychotherapy appears to be more effective than psychotherapy or medication alone. An overarching feature of psychotherapy is the therapist effect and the therapeutic alliance, which can significantly impact on the outcome of treatment and early gains. In which psychotherapists that established and maintained the therapeutic alliance had more client progress and recovery.

Cognitive Behavioural Therapy is structured, time sensitive, and problem focussed. CBT is founded on cognitive and behavioural theories in which behaviour change affects cognitive change and vice versa. A low intensity CBT format has been developed and typically utilises written approaches. Overall, the literature provides evidence that CBT and LICBT are effective at alleviating depression in adults cross culturally. However, cultural considerations and adaptations maybe needed to improve acceptability and uptake for Māori.

CHAPTER 4: SELF-HELP INTERVENTIONS

Chapter Overview

This chapter outlines difference of low intensity CBT in guided and unguided delivery and the effectiveness across clinical and non-clinical populations and in various formats. The use of telecommunications is explored as ways to improve the reach and accessibility of programmes. Monitoring and measuring change are an important feature of LI-CBT to ensure safety and respond to clients' needs. To conclude the chapter a brief outline of common psychometrics measures is given.

Self-Help Interventions

LI-CBT has become synonymous with self-help resources and is delivered in two main approaches guided and unguided self-help. Unguided self-help typically involves no contact with a therapist and the use of resources in various formats such as, audiotapes, internet based, computer programmes, mobile applications (Papworth et al., 2013; C. J. Williams, 2003), and with written workbooks and handouts (McKenna, Hevey, & Martin, 2010; Van't Hof, Cuijpers, & Stein, 2009). Guided self-help utilizes self-help resources in much the same way as unguided self-help interventions but includes some support from a practitioner, such as a PWP (M. W. Williams, Haarhoff, & Vertongen, 2017). Self-help forms of treatment appear to have a good level of acceptability and satisfaction, notably because of convenience, privacy, and flexibility in treatment delivery (G. Andrews et al., 2010; Rost et al., 2017; C. J. Williams & Whitfield, 2001; C. J. Williams et al., 2013). This may be preferable for some Māori who would prefer whānau not be involved, due to the perceived loss of standing, shame, self-abasement within their community and stigma associated with mental health (Peterson, Pere, Sheehan, & Surgenor, 2004; Sachdev, 1990; A. D. Williams et al., 2018). Both guided and unguided self-help CBT intervention studies provide evidence for efficacy however, guided self-help appears to have an advantage over unguided application (Berger, Hämmerli, Gubser, Andersson, & Caspar, 2011; Bower & Gilbody, 2005; Cuijpers, Noma, Karyotaki, Cipriani, & Furukawa, 2019; Gellatly et al., 2007; C. J. Williams et al., 2013).

CBT Unguided Self-Help

Unguided self-help interventions such as Internet, computer-based and written self-help are effective at treating depression (Cuijpers, 1997; Kaltenthaler, Parry, Beverley, & Ferriter, 2008; Morgan et al., 2017; Proudfoot et al., 2004; Scheibmair, 2010; Schröder, Berger, Westermann, Klein, & Moritz, 2022; Wagner, Horn, & Maercker, 2014; Yuan et al., 2018). Written self-helps books much like computer based and internet formats use a standardised treatment delivered via a particular medium where the patient works independently (Gualano et al., 2017). Written self-help also referred to as bibliotherapy is generally cost effective, time saving, widely accessible, and has minimal or no contact with a therapist (Cuijpers, 1997; Gualano et al., 2017; Rohde, Stice, Shaw, & Brière, 2014; C. J. Williams & Whitfield, 2001). However, reading and education level required are a limitation of written forms of self-help (Karyotaki et al., 2015; Kavanagh & Proctor, 2011). Gellatly and associates (2007) recommend that self-help books be grounded in CBT. Richards and Farrand (2010) suggest that when developing self-help resources, the ability to engage readers, reading age, text size, sentence structure, use of relevant narratives, slang, and metaphors should be considered.

In regard to bibliotherapy (written or book-based self-help), a meta-analysis by L. Anderson and others (2005) explored 11 studies to examine the effectiveness of self-help intervention for adults with depression. The study found a large and statistically significant treatment effect size for the 'Feeling Good' self-help book at week four (d = -1.36, 95% CI: -1.76, -.96). Another self-help book such as 'Control your Depression' had a moderate effect size but was not statistically significant (d = -.58, 95% CI: -1.40, .25). The study concluded bibliotherapy to be effective, however, it was noted that the studies tended to be of poor quality with small participant numbers, warranting further research (L. Anderson et al., 2005).

Moldovan and others (2013) conducted a RCT study using cognitive based bibliotherapy for young adults (n = 96) with mild depression. The study found that cognitive bibliotherapy was statistically and clinically significant in reducing depressive symptoms with no significant loss of treatment gains at three months follow up. A study investigating the effectiveness of bibliotherapy with older adults (n = 31), age 60 and over had similar findings with a large effect size compared to control (e.g., individual psychotherapy) (d = .93) (Floyd, Scogin, McKendree-Smith, Floyd, & Rokke, 2004). Post

programme the bibliotherapy group tended to improve through to three months follow up in which no significant difference between the two groups were found. Furthermore, the bibliotherapy group had a dropout rate of 12.5 percent which was considered to be low by psychotherapy standards (30%; Sharf, 2008) (Floyd, Scogin, McKendree-Smith, Floyd, & Rokke, 2004). These findings are contrasting compared to Menchola, Arkowitz, and Burke (2007) who found that self-help treatments were effective to no treatment control groups but had poorer outcomes to therapist administered treatments (*d* = -.31).

Within the context of New Zealand, CBT self-help programmes are predominantly computer or internet based such as: Beating the Blues (Proudfoot et al., 2003; Proudfoot et al., 2004), Smart Positive, Active, Realist, X-factor thoughts (SPARX) (Merry et al., 2012), and Overcoming Depression (Whitfield, Hinshelwood, Pashely, Campsie, & Williams, 2006).

Beating the Blues is a CBT online programme developed by Proudfoot and others (2003) in the UK. The programme is free with referral from GP in New Zealand and offers eight, 50-minute sessions which encourage daily implementation of CBT based practical skills and techniques (e.g., thought record, thinking errors, problem solving, scheduling, challenging thoughts) to manage mental health (Manage My Health, 2022a). The programme is targeted at adults with mild to moderate anxiety and depression and has demonstrated clinically significant reductions in depressive and anxiety symptoms greater than treatment as usual (i.e., GP care, primarily medication) and over no care at all (Proudfoot et al., 2004). Initial demonstrations of Beating the blues in New Zealand (*n* = 100) (as cited in Manage My Health, 2022a) showed promising outcomes with 62 percent of the patients satisfied with the treatment programme and clinically significant pre-post change on the Clinical Outcomes in Routine Evaluation-Outcome Measure (CORE-OM; Barkham, Evans, Margison, & McGrath, 1998). The Beating the Blues website states that seven out of ten people overcome their depression (Manage My Health, 2022b), however, there is a lack of transparency regarding uptake of the programme and completion rates in New Zealand. Albeit, the Beating the Blues programme has a sound evidence-base in the international literature (e.g., Learmonth & Rai, 2008; Proudfoot et al., 2003; Proudfoot et al., 2004; Ratajska, Zurawski, Healy, & Glanz, 2019).

SPARX (https://www.sparx.org.nz/home) is a free online programme and was developed in New Zealand by Metia Interactive within the University of Auckland (Auckland Uniservices Ltd, 2022). SPARX's is targeted at youth (12 to 19) with mild to moderate depression (Auckland Uniservices Ltd, 2022; Merry et al., 2012). The program differs from traditional computer-based CBT programmes in that it is a game-based CBT programme. SPARX consists of seven modules which contain mini games, strategies, and puzzles to challenge negative thoughts in an interactive way (Merry et al., 2012). Exploring the effectiveness of SPARX, Merry and others (2012) recruited 187 adolescent participants from across 24 primary healthcare sites in New Zealand. The participants were divided into two groups in which one group would receive face to face counselling and the other group was delivered the SPARX programme. Findings showed a higher remission rate for the SPARX group of 43.7 percent compared to 26.4 percent. Also, the response rate for the SPARX group was 66.2 percent compared to 58.3 percent. Studies have also investigated the effectiveness for other youth groups such as Māori (Shepherd, 2011; Shepherd et al., 2015; Shepherd, Merry, Lambie, & Frampton, 2014) and LGBTQIA+ (Lucassen, Merry, Hatcher, & Frampton, 2015). SPARX is an innovative approach to treating depression and proven to be effective and acceptable therapeutic medium for New Zealand youth as evidenced by high adherence rates (e.g., 86% completed at least four modules) and dropout rates of around nine percent (Lucassen et al., 2015; Merry et al., 2012; Stasiak, Hatcher, Frampton, & Merry, 2014).

Overcoming Depression was developed by C. J. Williams, Taylor, Aubin, Harkin, and Cottrell (2002). The CBT based CD-ROM offers six, one-hour long sessions. The initial pilot study (n = 20) (Whitfield et al., 2006), offered the programme to waitlisted patients in secondary care. The study found patients achieved clinically effective change for those that completed the programme (n = 15) and had a mean score of 18.93 (SD = 10.23) at six weeks compared to baseline of 30 on the BDI-II. This suggests an overall severity rating reduction from severe to mild depression. The study also achieved statistically significant change on the Becks Anxiety Inventory (BAI; A. T. Beck, Epstein, Brown, & Steer, 1988) with a mean change in severity from moderate to mild (Whitfield et al., 2006). Overall, programme satisfaction was rated as good (67%) however, only 27 percent of those referred took up the programme when offered to waitlisted patients in which five dropped out (25%). A New Zealand based study (Scheibmair, 2010), explored

the effectiveness and acceptability the Overcoming Depression programme in a general practice setting. The study found clinically significant reduction in depressive symptoms on the PHQ-9 and Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983), and increases in social functioning (e.g., Social Adaptation Self-evaluation Scale; Bosc, Dubini, & Polin, 1997). However low uptake (*n* = 29; over 16-month period) and high dropout rate (i.e., 31%) suggests further research is needed.

Comparing bibliotherapy and internet-based CBT programmes, J. Smith, and others (2017) conducted a RCT (*n* = 270) exploring the effectiveness of guided internet CBT compared to unguided CBT self-help book, unguided meditation self-help book and a waitlist control group. The outcome found large effect sizes across all groups compared to waitlist control at post treatment; guided internet CBT (*g* = .86); unguided book CBT (*g* = .98; unguided meditation book (*g* = .83) (J. Smith et al., 2017). The internet CBT and unguided book CBT groups showed no significant deterioration at three months follow-up. However, guided internet CBT showed more participants reached clinically significant change compared to book CBT, 61.1 percent, and 48.6 percent respectively. However, all groups were susceptible to high attrition rates: Guided internet CBT (39%); unguided book CBT (36%); and unguided meditation book (42%) (J. Smith et al., 2017).

A self-help computer based meta-analysis of 23 studies by Richards and Richardson (2012), had a dropout rates up to 74 percent for unsupported computer-based self-help, 38.4 percent with administrative support, and 28 percent therapist support. Supported studies were also more advantageous with a large post treatment effect size for therapist support (*d* = 1.35) compared to administrative support (*d* = .95) and no support (*d* = .78). Richards and Richardson (2012) found a high level of user satisfaction between 70 and 93 percent. These findings compare similarly to Bilich, Deane, Phipps, Barisic, and Gould (2008) and supported by a recent meta-analysis by Cuijpers and associates (2019) regarding the effectiveness of guided and unguided support. Additionally, Richards and Richardson (2012), found that support programmes increased the retention rate between 30 and 40 percent.

Criticisms of Unguided Self-Help

Unguided self-help interventions provide increased accessibility to effective interventions for depression, although purportedly less effective to guided self-help

methods (Andersson & Cuijpers, 2009; Cuijpers, Noma, et al., 2019; Richards & Richardson, 2012; Spek et al., 2007). Unguided self-help intervention may provide access to evidence-based treatments whilst maintaining anonymity for those people who may prefer or are not ready to work on needs in a group or face to face setting (C. J. Williams & Whitfield, 2001). However, there appears to be significant heterogeneity in the literature regarding the effectiveness of self-help programmes or at least that not all self-help programmes are as effective (Cuijpers, Noma, et al., 2019). Unguided self-help interventions experience high dropout rates, low uptake and despondency appear to reduce the effectiveness of self-help resources (Karyotaki et al., 2015; Lawler, Earley, Timulak, Enrique, & Richards, 2021; C. J. Williams & Whitfield, 2001). For example, UK based self-help studies found attrition rates around 50 percent (N. Holdsworth, Paxton, Seidel, Thomson, & Shrubb, 1996; Shapiro, Whitfield, & Williams, 2001).

The majority of unguided self-help interventions are internet based, however, a recent study conducted in the US (*n* = 423) by De Jesús-Romero, Wasil, and Lorenzo-Luaces (2022) found that participants preferred bibliotherapy over internet-based self-help. In which preference was influenced by education level, perceived helpfulness, and availability. This suggests a need to evaluate the effectiveness of contemporary self-help CBT books the majority are non-evidence based (Richards & Farrand, 2010).

Perhaps the most important criticism is the consideration of safety, in which J. Smith and associates (2017) caution the use of unguided self-help recommending that participants should be formally assessed and monitored due high rates of suicidal ideation present in people experiencing depression. Thus, factors such as the lack of completion, and safety risks associated with depression advocate for a more guided approach to self-help interventions.

CBT Guided Self-Help

Guided self-help uses minimal guidance from a therapist typically a PWP (within IAPT services) or programme facilitator, to enhance the delivery of self-help resources (Clark, 2018; Papworth & Marrinan, 2018; M. W. Williams et al., 2017). Guided LI-CBT sessions can be delivered individually or in groups, and using multimedia (e.g., telephone, email, text, computer, and internet) and face to face formats (Ali et al., 2017; Martyn, 2017; Montagu, 2015; C. J. Williams et al., 2018; C. J. Williams et al., 2013). The National Health Service (2018) states that guided self-help is usually delivered over 4-6

sessions, and usually delivered by telephone (see section below). Studies by Bilich and associates (2008); Bendelin and others (2011); Johansson and Andersson (2012); and MacGregor, Hayward, Peck, and Wilkes (2009) suggest a support person may help to keep patients motivated in which Wright and associates (2005) found that an input of 30 minutes per week was sufficient to reduce dropout and improve completion rates in a computer-assisted CBT intervention.

According to Gellatly and associates (2007) a large effect size (*d* = .80) was found for guided self-help interventions compared to a small effect size for unguided self-help interventions (*d* = .06). In comparison to written and online self-help, Gellatly and associates (2007) also found no significant difference in effectiveness, *d* = .48 and *d* = .38 respectively. Other studies such as a meta-analysis conducted by Cuijpers and associates (2010) and Andersson and others (2013) found guided self-help compared similarly to face-to-face and group formats.

Cuijpers and others (2019) completed a network meta-analysis of 155 RCT studies (*n* = 15191) to examine the effectiveness and acceptability of different CBT formats for adults with depressions. The findings reinforce the previous studies in that guided self-help CBT appeared to be more effective than unguided formats, waitlists, and care as usual. The effect size for guided self-help CBT compared to unguided self-help CBT was small to moderate and statistically significant (*d* = .34–.59) and moderate to large when compared to waitlist control (*d* = .60–1.04) (Cuijpers, Noma, et al., 2019). Cuijpers, Noma, and others (2019) also found no statistically significant difference between guided CBT and individual, group, and telephone formats. However, individual, group formats, waitlist, and care as usual showed greater acceptability than guided self-help CBT. Acceptability was determined based on drop out. A limitation was that it did not explore differences in the group demographics which may explain the low acceptability for guided self-help CBT. C. J. Williams and Whitfield (2001) suggest that recruiting through general public via media may lead to increased acceptability and adherence. Other factors such as age, level of education and preference may also effect the acceptability of programme (Gonzalez Salas Duhne, Delgadillo, & Lutz, 2022; Karyotaki et al., 2015).

The evidence-base for guided LI-CBT in New Zealand are increasing with several individual and group delivered programmes such as Overcoming Depression and low

mood (Montagu, 2015; Scheibmair, 2010), Living Life to The Full (Forman, 2015; Lee, 2014; Martyn, 2017), and including a Māori adapted ultra-brief intervention for psychological distress (Mathieson et al., 2012). These studies and others will be discussed below.

A New Zealand based guided self-help study by Montagu (2015) used the Overcoming Depression and low Mood: A Five Areas Approach workbook (ODLM; C. J. Williams, 2009). The programme book contains 16 workbooks and was delivered to individuals recruited form the community with four support sessions over six weeks. The study included two support conditions, face to face (*n* = 12) and telephone (*n* = 7). The PHQ-9, Ten-item Clinical Outcome in Routine Evaluation (CORE-10; Barkham et al., 2013), and Quality of Life Enjoyment and Satisfaction Questionnaire-Short Form (Q-LES-Q-SF; Endicott, Nee, Harrison, & Blumenthal, 1993) were used to monitor and track progress and found that as depression and psychological distress reduced, the level of quality-of-life satisfaction increased with an interaction around three weeks. The study found reliable and clinically significant change across the PHQ-9, CORE-10, and Q-LES-Q-SF from baseline to termination, 54 percent, 77 percent, and 63 percent respectively (Montagu, 2015). The pre-post change on the PHQ-9 resulted in a large effect size for face to face (*d* = 1.12) and telephone conditions (*d* = 1.60) (Montagu & Williams, 2017). The overall dropout rate across both groups was approximately 31 percent (*n* = 6/19), 42 percent (*n* = 5/7) for the face-to-face condition and 14 percent (*n* = 1/6) for the telephone condition (Montagu, 2015). However, a small sample size and high attrition limits the generalisability of results within New Zealand population, in which a larger study is needed to draw greater conclusion regarding the effectiveness of guided LI-CBT in New Zealand.

International studies support these findings with a significantly larger Canadian study that analysed closed cases from the Bounce Back programme in British Columbia (2008-2014) (Lau & Davis, 2019). The study found that 68.5 percent (*n* = 3794/5537) of participants who were experiencing depression, anxiety or both no longer had clinical symptoms. These findings build on the original study (*n* = 281) by C. J. Williams and others (2013) suggesting that the ODLM programme is more effective than previously thought and found 42.6 percent of participants in the guided self-help programme recovered compared to 24.5 percent in the treatment as usual group at four months

follow up and achieved a 50 percent reduction in BDI-II baseline scores. Additionally, a maximum practitioner input of 160 minutes over four sessions was significantly better than treatment as usual with an odds ratio for recovery that suggests the guided self-help CBT group was 2.28 times more likely to improve in depressive symptomology (C. J. Williams et al., 2013). The programme achieved a dropout rate of 10 percent and indicated a high level of satisfaction on Client Satisfaction Questionnaire 8 (CSQ-8; Larsen, Attkisson, Hargreaves, & Nguyen, 1979)(*M* = 27.6/32) which suggests that programme was well accepted by participants (C. J. Williams et al., 2013).

In regard to Māori base studies, Mathieson, and associates (2012) developed and implemented a culturally adapted ultra-brief guided CBT programme for Māori (e.g., two face to face sessions) for psychological distress. Similar to S. T. Bennett's study (2009), the adaptations included whakawhanaungatanga (process of establishing relationships), karakia (prayer) and was delivered in conjunction with booklets that included cultural imagery and Māori language. The adaptations were highly accepted by patients and treatment gains were not significant at three months follow up. Additionally, the study had a small sample (*n* = 16) with a high dropout rate (*n* = 7) of 43.75 percent. However, reiterating the previous chapter there appears to be no studies exploring the effectiveness of guided LI-CBT with mild to moderate depression in Māori adults.

Living Life to the Full programme

The Living Life to the Full – For Low Mood and Stress (LLTTF) programme (see chapter 6 for more information) was first published by Dr Chris Williams in 2007 and has recently been chosen to be available in every library in England as part of the NHS mental health programme and includes written and internet based platforms and targeted at a range of mental and physical health issues (e.g., anxiety, depression, diabetes, eating disorders) and groups (e.g. young people, students, adults, older people, farmers, Urdu) (see https://llttf.com/) (Living Life to the Full, 2022).

An individually delivered RCT pilot study was conducted by Freire and others (2015) to test the feasibility, clinical and cost effectiveness of the LLTTF programme (e.g., nine booklets) against counselling for adults with mild to moderate symptoms of depression (measured by PHQ-9) in primary care settings. The LLTTF programme was delivered across eight weeks and offered up to eight guided telephone support session (20–30 minutes)(Freire et al., 2015). A total of 36 participants were recruited and blindly

randomised into the two conditions (LLTTF, *n* = 17; Counselling, *n* =19) (Freire et al., 2015). Overall, there were no significant difference in mean change between the two conditions in which a large pre-post effect size (*g* = 1.25) was found for the PHQ-9 scores Combined. In total, 71.4 percent of participants (*n* = 10/14) with mild depression at baseline had recovered and 66.7 percent of participants (*n* = 8/12) who were subthreshold at baseline did not deteriorate to develop a major depressive disorder at six month follow up (Freire et al., 2015). The study also showed a high level of client satisfaction; however, the uptake rate was extremely low in which only 1.8 percent of participants from general practices (*n* = 36/1964) took part in the study suggesting barriers remain for accessing evidence-based care for depression (Freire et al., 2015).

One study in New Zealand by Lee (2014) has evaluated the effectiveness of individually guided LLTTF programme and cross-cultural acceptability using Southeast Asian international students (*n* = 13) with mild to moderate low mood. Lee (2014) used a repeated measure time-series design for depression (e.g., PHQ-9), anxiety (e.g., GAD-7) and quality of life (e.g., World Health Organisation Quality of Life Questionnaire). The programme was offered in an individual format with weekly face-to-face sessions to address individual needs, and to encourage discussion in a format that reduces culturally based stigma and barriers (e.g., shame) around mental health (Lee, 2014). Overall, pre-post scores indicated that seven participants (53.85%) achieved clinically significant change in depression (PHQ-9) and eight (61.54%) achieved clinically significant change in anxiety (GAD-7) (Lee, 2014). Furthermore, the study found the LLTTF programme to be well accepted by participants with high CSQ-8 scores and a low dropout rate (15%; *n* = 2) (Lee, 2014). Semi structured interviews also noted that participants in general felt the programme fit culturally and suggests the programme shows flexibility in cross cultural groups. The study was found to be effective in improving low mood, anxiety and quality of life and was culturally acceptable with east and south Asian students, however, Lee (2014) notes that social desirability motivation may have overestimated the treatment outcomes.

The LLTTF programme also has an evidence base in group-based settings. Williams and associates (2018) used an individually randomised design with delayed access control to ascertain the effectiveness of group LLTTF programme (*n* = 142) in a community setting to reduce anxiety and depression. It is important to note that while

the programme is delivered as a group, the structure of the programme requires individualised plans which may allow flexibility to determined culturally informed goals. The results found that 43.8 percent (*n* = 21) of the immediate access group reduced symptoms by 50 percent on PHQ-9 scores at six months follow up, compared to the delayed group 17.9 percent (*n* = 10) (C. J. Williams et al., 2018). Furthermore, 56.2 percent reduced PHQ-9 score by five or more points. The study also found that those who had higher baseline scores improved more (e.g., reduction of five or more points) over subthreshold scores on the PHQ-9 (< 9) who had no significant change at follow up. Therefore, participants with moderate to severe PHQ-9 scores tended to recover more than participants with mild depressive symptomatology. A high level of participant satisfaction was found on the CSQ-8 with a mean score of 24.3 (*SD* = 5.1), however, the dropout rate was 32.4 percent (*n* = 23/71)(C. J. Williams et al., 2018). The study was able to capture reasons for drop out which included alternative treatment, lack of time and deteriorating mood. Additionally, there appears to some evidence to suggest that providing an immediate intervention from participants recruited from the community may improve treatment outcome for group base LI-CBT and the need to provide greater access to programmes such as LLTTF.

A New Zealand based study by Forman (2015) implemented the group based LLTTF programme with adults with mild to moderate depression (*n* = 19) in a community-based setting. The study was designed for multilevel modelling (MLM) however, a single case approach was taken due to attrition (31.57%; *n* = 6). The reliable change index showed that 46.2 percent (*n* = 6/13) achieved clinically significant change on the PHQ-9, 61.5 percent (*n* = 8/13) on the CORE-10 and 15.4 percent (*n* = 2/13) achieved reliable and clinically significant change on the Q-LES-Q-SF (Forman, 2015).

Group guided LLTTF conducted by Martyn (2017) was undertaken with older people experiencing depression (including anxiety, and quality of life) within New Zealand populations using a multilevel modelling, repeated measures, single group design. The longitudinal approach measured depression, anxiety, and quality of life enjoyment and satisfaction at baseline, weekly during the programme and at one a six-week follow-up periods. A total of 24 participants predominantly women met the conditions for inclusion, in which the dropout rate was low at 8.33 percent (*n* = 2) (Martyn, 2017). The study found an average change trajectory on the PHQ-9 of – .42

units per week, Geriatric Anxiety Inventory (GAI; Pachana et al., 2007) -.51 units per week; and .51 units per week for Q-LES-Q-SF. This suggests that the programme overall was effective at reducing low mood and anxiety with an increase in participants quality of life enjoyment and satisfaction. Therefore, 87.5 percent of participants (*n* = 21/24) reduced their depression severity (i.e., PHQ-9) over time, two worsened, and one no change (Martyn, 2017). Reduction in anxiety (i.e., GAI) was similar with 87.5 percent of participants (*n* = 21/24) reduced severity of time, one worsened, and two had no change. In regard to quality of life, 75 percent of participants (*n* =18/24) reduced severity over time, three worsened, and three showed no change. Additionally, 12 participants (e.g., 50%) reduced their depressive symptoms by 50 percent or more at post programme with further improvements at one and six week post programme follow up, 58 percent (*n* = 14/24) and 66.67 percent (*n* = 16/24) respectively (Martyn, 2017). Due to the heterogeneity in average change trajectory (Martyn, 2017) used MLM (2 level) to examine within and between person variability over time. Engagement was used as a moderating variable for differences in the rate of change based on research that greater effort led to greater treatment outcomes (E. Holdsworth, Bowen, Brown, & Howat, 2014; Martyn, 2017). The study found that time explained a significant proportion of the variance in trajectories on the PHQ-9, GAI, and Q-LES-Q-SF however, the level of engagement did not significantly explain variance in change trajectory. This is likely due to insufficient power to detect significant differences. The study showed that group-based CBT self-help programmes can be effective for older people living in the community with low mood within a New Zealand sample.

The majority of CBT guided self-help studies are conducted with adults predominantly from US, UK, and Canada; however, studies also show CBT based guided self-help to be effective cross culturally (Lee, 2014; Mathieson et al., 2012) for adolescent (Yuan et al., 2018), and older populations (Kishita, Takei, & Stewart, 2017; Martyn, 2017; Shandro, 2010) in treating depression. Other studies have found self-help to be effective with treating other disorders for example: Alcohol (Apodaca & Miller, 2003); panic disorder (Marrs, 1995; Nordin, Carlbring, Cuijpers, & Andersson, 2010); social phobia (Chung & Kwon, 2008; Palumbo, 2015); Stroke (Paul Farrand, Woodford, Coumoundouros, & Svedin, 2020); and eating disorders (Grover et al., 2011; Sánchez-Ortiz et al., 2011).

Supporting LI-CBT With Technology

The use of a telephone is increasing in popularity as one way to deliver therapy (Brenes, Ingram, & Danhauer, 2011; Lovell et al., 2006; Ludman, Simon, Tutty, & Von Korff, 2007). A systematic review by Bee and associates (2008) found that delivering high intensity therapy via telephone can overcome barriers that often isolate people from accessing mental health services, such as remote areas, after-hours sessions, and mobility disabilities. However, due to potentially high-risk situations such as suicidality, practise guidelines for using telepsychology have been developed to standardise proper standards of care, confidentiality, ethical, and legal considerations (American Psychological Association, 2013; New Zealand Psychologists Board, 2012).

The effectiveness for the use of therapy via telephone is promising with studies indicating clinically significant reductions in symptoms across a range of mental health disorders (Bilich et al., 2008; Cuijpers, 1997; Palmer, Birchall, McGrain, & Sullivan, 2002). A meta-analysis by Mohr, Vella, Hart, Heckman, and Simon (2008) found that telephone administered psychotherapy had greater pre-post effect size (*d* = .82) compared to face-to-face pre-post effect size (*d* = .71).

In context of Low intensity interventions, a recent study conducted in Australia by Lawn and associates (2019) delivered LI-CBT (i.e., MindStep) via telephone, to a large sample of patients (*n* = 680) who had recently been admitted to hospital for depression or anxiety. The study provided one assessment session (approx. one hour) and up to six treatment session around 30 minutes each. A 'per-protocol' analysis based on programme completer found reliable recovery rate of 62 percent and a large pre-post effect size on PHQ-9 (Kroenke et al., 2001) and GAD-7. Additionally, 66 percent of programme completers made reliable improvements (change scores of 5 or more), 2.81 percent deteriorated, and 31.15 percent had no change (Lawn et al., 2019). The study had a low dropout rate of 9.85 percent (*n* = 67/680) and found participants who attended more session improved greater, this trend was also found for those with higher baseline severity (Lawn et al., 2019).

Studies utilising communication technology provide evidence that suggests telephone interventions may also decrease the levels of attrition (Bilich et al., 2008; Gould & Clum, 1995; Kenwright, Liness, & Marks, 2001; Lovell & Richards, 2000; Mohr et al., 2008; Montagu, 2015; Palmer et al., 2002). Adherence to programmes is a significant

issue in which the use of telephones and other communication technologies, may help to reduce some of the limitation of traditional CBT interventions (e.g., face to face). The use of communication technology may provide greater access to those who live at distance, who may be unable to travel and be delivered at a time that is more convenient (e.g., outside traditional work hours) and may overcome barriers such as work and childcare responsibilities (Mohr et al., 2008; Montagu, 2015; Palmer et al., 2002; Parsonson & Stokes, 2013). Thus, communications technology can help to provide greater access to evidence-based CBT interventions and an alternative option which may be more appropriate to client's preferences. Client preference is an important consideration in which a study by Cooper and associates (2018) found that participants performed better when given their treatment preference of choice and was found to be a strong predictor of treatment outcome.

The use of Video Conferencing Psychotherapy (VCP) is a rapidly growing treatment delivery modality. Backhaus and others (2012) carried out a systemic review of videoconferencing psychotherapy. The study found that VCP is comparable to face-to-face psychotherapy although larger clinical trials are needed to ascertain the efficacy and effectiveness of VCP. This finding is comparable with a study by Osenbach, O'Brien, Mishkind, and Smolenski (2013). Although research is limited for VCP, a review by Bee and associates (2008) identified that remote communication technology which includes telephone, video conferencing and internet had a medium effect size (d = .44) for depression. Fortney and associates (2013) conducted a telemedicine study between 2007 to 2009 and supports videoconferencing as an effective treatment format. Other studies have found video conferencing to be effective with other disorders for example substance abuse (King et al., 2009); panic disorder with agoraphobia (Bouchard et al., 2004); posttraumatic stress disorder (Germain, Marchand, Bouchard, Drouin, & Guay, 2009); obsessive compulsive disorders (Himle et al., 2006); and Anxiety (Yuen et al., 2013). Studies also suggest that VCP is well accepted by patients and further helps to increase access to evidence based training and trained therapists (Himle et al., 2006; Jenkins-Guarnieri, Pruitt, Luxton, & Johnson, 2015).

Therefore, the use of telecommunication technology is generally well accepted and can used to improve the delivery of psychotherapy for those suffering with depression and other disorders (Lawn et al., 2019; Montagu, 2015; Tse et al., 2021;

Wood et al., 2021). Although, there is limited evidence to support VCP within guided self-help programmes, VCP based interventions compare similarly to telephone and face to face delivered treatments (Backhaus et al., 2012; Bee et al., 2008). Furthermore, communications technology provide flexibility and are beneficial platforms that are convenient, cost effective and help to normalize mental health care (Novotney, 2017). Although there is a correlation with the number of telephone contacts and greater adherence, engagement, and satisfaction for clients, McCusker and others (2016) suggests that this may not lead to improvement in depressive symptomology.

Criticisms of Guided Self-Help

The importance of the therapeutic alliance according to Haarhoff and Williams (2017) is currently a debated issue considering LI-CBT formats promote less contact time to traditional CBT and comparative treatment effects to unsupported written based self-help intervention (Bennett-Levy & Farrand, 2010; P. Farrand & Woodford, 2013). Chaddock (2013) argues that the therapeutic alliance remains important although slightly different given the brevity of the working relationship to more traditional approaches (P. Farrand & Williams, 2010). Although, guided LI-CBT can be more effective than unguided self-help and treatment as usual, Coull and Morris (2011) found mixed evidence using RCT studies regarding the effectiveness of guided LI-CBT with clinical and non-clinical populations. Coull and Morris (2011) found that guided self-help tended to be more effective for media recruited participants, but the evidence was inconclusive within clinical populations. There is also evidence to suggest that only 47 percent of people deemed recovered after completing LI-CBT within the IAPT programme remain recovered at the one-year mark. This means that the 53 percent of people are likely to relapse within the first year in which 79 percent of that group within the first six months (Ali et al., 2017). It should also be noted that depression has a high rate of relapse, and that relapse prevention maybe lacking in LI-CBT interventions and therefore a need for post treatment follow-up particularly in the first six months with those who have residual symptoms at the end of treatment (Ali et al., 2017). However, relapse maybe lower for people who undergo psychotherapy intervention compared to non-psychotherapeutic interventions (e.g., pharmacotherapy, treatment as usual) (Steinert, Hofmann, Kruse, & Leichsenring, 2014). Furthermore, guided self-help may not be suitable for more complex, comorbid mental health needs (Steinert et al., 2014) and

not suitable for people with difficulties in reading, language of material, computer illiteracy, and no access to a computer and or telephone (National Collaborating Centre for Mental Health, 2011).

Monitoring and Measuring Change Outcomes

Monitoring change is a fundamental feature of LI-CBT which employs various psychometric measures track and monitor progress. Monitoring treatment outcome, effectiveness, and efficacy are a central focus of LI-CBT and stepped care approaches to allow for self-correction and clinical client progress (Richards, 2010b). In this way, regular and frequent measurement can help to assess the need to step up or down within stepped care as well as inform proceedings during treatment sessions (Richards, 2010b). According to Gilbody, Richards, and Barkham (2007), "brief self-rated questionaries' are as good as clinician instrument in detecting depression…" (p.650). Several of examples of brief psychometric questionnaires are listed below:

Depression

Beck Depression Inventory-II (A. T. Beck et al., 1996)

Dysfunctional Attitudes Scale, 9-Item (DAS-9) (Weissman & Beck, 1978)

Beck's Hopelessness Scale (BHS) (Aaron T Beck, Weissman, Lester, & Trexler, 1974)

Patient Health Questionnaire Depression Scale (PHQ-9) (Kroenke et al., 2001)

Anxiety

7-item Generalized Anxiety Disorder Scale (GAD-7) (Spitzer et al., 2006)

Becks Anxiety Inventory (A. T. Beck et al., 1988)

Wellbeing

Quality of Life and Enjoyment Questionnaire-Short form (Q-LES-Q-SF) (Endicott et al., 1993)

Stress

Ten-item Clinical Outcome Routine Evaluation (CORE-10) (Barkham et al., 2013)

Brief assessment tools such as those above are routinely used in Low Intensity CBT and have been selected based on validity and have been used in similar LI-CBT

studies (Forman, 2015; Lee, 2014; Lopez et al., 2014; Martyn, 2017; McClay, Morrison, McConnachie, & Williams, 2013; McCusker et al., 2016; Montagu, 2015).

Chapter Summary

The integration of LICBT primarily through unguided or guided support. Both approaches can be delivered via different mediums such as written books or internet and phone applications. Although similar in effectiveness unguided self-help approaches tend to have higher drop out and lower completion. However, this may depend on client preference to the treatment option which is likely to lead to greater adherence and acceptability. Guided self-help approaches provide support from a facilitator or therapist which may lead to higher completion rates and lower drop out. Guided support typically varies between four to six sessions, up to 30 minutes per session, with a focus on monitoring progress and resolving barriers to completion. Sessions can be done face to face or through telecommunication which maybe suitable according to the client's preferences and provide a flexible tailored approach. Monitoring sessions and managing risk is another benefit of a guided approach given the high occurrence of suicidal ideation and depression. Therefore, the use of brief outcome measures can be beneficial to managing treatment which may require a higher intensity treatment. The LLTTF programme is based on LICBT principles and has been shown to be effective at reducing depression and anxiety internationally. New Zealand based LICBT research has grown in recent years and shows promising results across the lifespan and cross culturally albeit limited with Māori populations.

CHAPTER 5: CURRENT STUDY OVERVIEW AND RESEARCH AIMS

Chapter Overview

This chapter provides a brief summary of the current study whilst putting forth a rationale based on previous literature and existing gaps regarding LI-CBT with Māori experiencing low mood. Literature informed hypotheses and research aims are given as the basis of the scientific method.

Study Overview and Rationale

The purpose of this study was to investigate the effectiveness of Low Intensity Cognitive Behavioural Therapy (LI-CBT) for adult Māori experiencing mild to moderate levels of low mood primarily within the community and on waiting lists for psychotherapy. Effectiveness can be defined by the efficacy and acceptability of the LLTTF programme. Therefore, efficacy can be measured by statistically significant reductions in low mood (PHQ-9) and psychological distress (CORE-10) whilst increasing quality-of-life enjoyment and satisfaction (Q-LES-Q-SF). A reduction of 50 percent or more on psychometric measures may also support the efficacy of the LLTTF programme (S. T. Bennett, 2009; C. J. Williams et al., 2018; C. J. Williams et al., 2013). Acceptability can be determined by individual satisfaction as measured on the CSQ-8 and low drop out whilst feedback using semi structured interviews may help to determine the cultural applicability of the LLTTF programme (Haitana et al., 2020). The study accessed a Kaupapa Māori health service waiting list (where possible) as a way to potentially minimize severity that is likely to occur without any immediate intervention and provide greater accessibility to interventions for Māori (Barrera et al., 2007; Whitfield et al., 2006; C. J. Williams & Whitfield, 2001).

Recruitment undertaken via media and word of mouth may potentially increase treatment outcome for participants who may prefer a low intensity intervention (G. Andrews et al., 2010; Elkington, 2017; Papworth et al., 2013; C. J. Williams & Whitfield, 2001). The LLTTF for low mood (3rd edition) by Dr Chris Williams (2017), is a self-help course made up eight CBT short workbooks (for more information see https://llttf.com/). Guided self-help delivered via telephone has shown to be effective within New Zealand and may help to reduce barriers to treatment (Montagu, 2015).

The LLTTF and other LI-CBT programmes have been studied in New Zealand and shown to be effective for non-Māori adults, Asian, and elderly groups (Forman, 2015; Lee, 2014; Martyn, 2017; Montagu, 2015; Scheibmair, 2010). However, currently, there is no studies for LI-CBT with Māori experiencing low mood in which the study aimed to provide insights into the effectiveness of LI-CBT interventions for Māori. An adapted high intensity CBT study for depression (S. T. Bennett, 2009) and a an ultra-brief guided self-help study for psychological distress (Mathieson et al., 2012) provide evidence to suggest that CBT is an acceptable format for Māori. To reduce stigma associated with mental health and cultural barriers, the study was delivered in an individual format (Lee, 2014; Peterson et al., 2004; Sachdev, 1990; Thomas, Arlidge, Arroll, & Elder, 2010; A. D. Williams et al., 2018).

Due to the heterogeneity in Māori identity an unadapted LLTTF programme was chosen, which may provide a baseline level of effectiveness and comparison should future adaptation to the LLTTF programme be explored (Durie, 1995; Durie et al., 1997). Additionally, given the flexibility of written guided self-help, individual plans may incorporate culturally derived goals as the therapeutic relationship is triadic between the participant, facilitator, and written book, in which, the therapeutic relationship may help to increase treatment outcome and reduce dropout rates (Arnow et al., 2013; Baier et al., 2020; Bennett-Levy, Richards, et al., 2010; Krupnick et al., 2006; Tschuschke et al., 2020). The therapeutic relationship maybe further enhanced by interpersonal skills that align to the clients preference including culture and spirituality (Norcross & Lambert, 2018).

Given the limitation of LI-CBT studies in New Zealand and with Māori population, this study followed the recommended delivery framework outlined in a facilitator guidebook (C. J. Williams, 2013). Furthermore, it is hoped that LI-CBT will be an effective preventative programme with the potential to minimise wait lists and divert the trajectory of depression for Māori within the community experiencing low mood (Barrera et al., 2007; Kraus et al., 2019; Kupfer, Frank, & Perel, 1989; Whitfield et al., 2006).

Research Questions:

1. How effective is the LLTTF programme in decreasing low mood in Māori research participants, and are change trajectories similar or different to non-Māori participants in comparative studies?
2. How effective is the LLTTF programme in decreasing psychological distress in Māori research participants, and are change trajectories similar or different to non-Māori participants in comparative studies?
3. How effective is the LLTTF programme in increasing quality of life enjoyment and satisfaction in Māori research participants, and are change trajectories similar or different to non-Māori participants in comparative studies?
4. How acceptable is the LLTTF programme on an individual and cultural level?
5. How acceptable is the LLTTF programme for waitlisted Māori participants?
6. What consideration may be needed to make the LLTTF programme more culturally acceptable and effective?

Research Hypotheses:

1. It is hypothesised, that participants that complete the guided LLTTF programme will result in significant reduction in low mood symptoms based on participants PHQ-9 scores.
2. It is hypothesised that participants that complete the guided LLTTF programme will result in significant reduction in psychological distress based on participants CORE-10 scores.
3. It is hypothesised that participants that complete the guided LLTTF programme will result in significant improvement in quality-of-life enjoyment and satisfaction based on participants ratings on the Q-LES-Q-SF scores.
4. It is hypothesised that the results of this study will have similar treatment outcomes comparable to New Zealand and international studies.

5. It is hypothesised that the acceptability of guided self-help LI-CBT programme will be applicable to Māori participants on an individual level as shown by high scores on the CSQ-8 and low dropout rates (< 30%; Sharf, 2008), but future cultural adaptations and considerations, identified through semi structured interviews, may be needed to enhance overall effectiveness.

CHAPTER 6: METHOD

Chapter Overview

This chapter outlines the research methods and design of the current study. This is done by giving an overview of the participants and recruitment approach, materials used and the procedure of how data was collected, managed, and analysed.

Participant Recruitment

The requirement for inclusion to participate in the study was that participants had to be of Māori descent and between the ages of 18 and 65 with mild to moderate depressive symptoms (e.g., PHQ score 5-19). Given the modality of the programme (e.g., bibliotherapy), proficiency in reading and writing in English with no major hearing or sight impediments (reading level of 12.6 years or older) was needed to utilise the programme. Participants with alcohol or substance dependency were excluded due to complex treatment needs which were outside the effectiveness of the programme and parameters of the current study. Participants with a high risk of harm to self or others were also excluded following screening and consultation with supervisors (e.g., active, or passive). Due to the prevalence of suicidal thoughts in depressed individuals' inclusion was considered based on the ability to maintain safety for the participant and available support systems (e.g., safety plan, support person). Thoughts of self-harm were monitored throughout the programme using outcome measures (see below) and as part of weekly sessions.

Participants were recruited from the Hamilton and Porirua region. Word of mouth and advertisement (see Appendix A) via social media (i.e., Facebook) were used to recruit participants (Elkington, 2017). The consultation was undertaken with Kaumatua from local iwi who agreed to support the study and assist with recruitment. Ora Toa Mauri Ora Services (Kaupapa mental health service, Porirua) and The Psychology Centre (mainstream mental health service, Hamilton) provided access to waitlists and the use of facilities. The Psychology Centre did not have any eligible clients, however, Ora Toa Mauri Ora identified six potential participants from their waitlist, of which four met eligibility criteria. Letters were sent to the four eligible waitlisted individuals outlining the programme offered. Two waitlisted individuals responded, agreed to, and met the criteria to participate in the programme.

A total of 27 individuals expressed an interest in participating in the 8-week programme. Seven did not meet eligibility and or were no longer interested upon initial contact. This resulted in a 74.07 percent uptake rate. The Eight-week programme LLTTF C. J. Williams (2017) was individually delivered over the duration of 2019 (see Materials below).

Participant Demographics

Demographic information was obtained through a screening questionnaire (see Appendix B) in which general characteristics of the participants are presented below.

Table 1

General Demographics of Participants who Completed the LLTTF Programme

		Number of Participants	%
Gender	Male	4	22.22
	Female	14	77.77
Age	18-19	1	5.56
	20-29	8	44.44
	30-39	5	27.78
	40-49	3	16.67
	50-59	1	5.56
	60-65	0	0.00
Iwi	Ngāti Toarangatira	6	33.33
	Ngāti Koata	1	5.56
	Ngāti Raukawa	1	5.56
	Te Atiawa	1	5.56
	Te Arawa	1	5.56
	Ngāti Whakaue	1	5.56
	Tu Wharetoa	1	5.56
	Ngā Puhi	4	22.22
	Ngāti Kahungunu	5	27.78
	Tainui	2	11.11
	Ngāti Porou	1	5.56
Living Situation	Live with Spouse/Partner Only	0	0.00
	Live with extended Family	2	11.11

	Live with Husband/Wife/Partner and other father	8	44.44
	Live with friends or acquaintances without any family	3	16.67
	Live with Child/ren	3	16.67
	Live with Parents	2	11.11
Employment Status	Full-time	8	44.44
	Part-time	2	11.11
	Unemployed	3	16.67
	Other (stay at home parent, carer of disabled child, student)	5	27.78
Previously Visited Doctor for Mental Health/Addiction	Total	11	61.11
	Male	1	5.56
	Female	10	55.56
Currently Taking Medication	Total	5	27.78
	Male	0	0
	Female	5	27.78

A total of 20 participants: 15 female (75.00%) and 5 males (25.00%) participated in the programme. Participants were between the ages of 19 and 58 years of age, with an average age of 33.6 years for females, 30.5 years for males, and an average of 32.8 years overall. Of the 20 who started the 8-week programme, two participants (one female, one male) dropped out during the first week of the programme. The writer was unable to establish contact to ascertain the reasons for dropping out of the programme. Thus, the programme had a 90 percent completion rate and a dropout rate of 10 percent. Due to confidentiality agreement, the data of the two participants who dropped out were not included in the current study.

Materials

The LLTTF core programme for low mood was made up of eight booklets and one user guide. The third edition (C. J. Williams, 2017) was the most current version at the time of programme delivery in 2019. Table 2 provides a list of the booklets used for the eight-week programme and the topics of each booklet. The current study used the prescribed list below for logistical purposes, however, a personal adaptation of the booklet order following week 1 (i.e., Why do I feel so bad?) is recommended based on participants' identified needs (C. J. Williams, 2013).

Table 2

The Order of Each Booklet, Week of Delivery During the Programme and General Learning Principles

Week	Name of booklet	Topic
One	Write all over the bathroom mirror	User guide
One	Why do I feel so bad?	The five-part model, understanding your feelings
Two	I can't be bothered doing anything	Behaviour activation, doing things that make you feel better
Three	Why does everything always go wrong	Looking at things differently
Four	I'm not good enough	Building inner confidence
Five	How to fix almost everything	Four easy steps, practical problem solving
Six	The things you do that mess you up	Changing and identifying unhelpful behaviour
Seven	Are you strong enough to keep your temper	Dealing with anger and irritability
Eight	10 things you can do to make you feel happier straight away	Practical tools to improve mood

Note. The LLTTF booklets (3rd ed.) are from Chris Williams (2017).

Booklets were delivered weekly to discourage participants from rushing ahead and to maintain focus on the booklet for the given week. After reading the booklet for the given week, participants were encouraged to fill out the planner sheet (Appendix C) which followed the principles of small, realistic, and achievable, goals. The tasks and goals were reviewed during the follow-up session using the review sheet (Appendix D) included in the booklets. Additional worksheets and review pages were available online to participants (**https://llttf.com/resources/llttf-worksheets/**).

Programme Facilitator Training

Programme facilitator training was undertaken before the commencement of the programme. A workshop was provided by the research supervisor Paul Merrick, who was a trained clinical psychologist. A guidebook; Five Areas Resources Supporter's Guide – Little CBT books (C. J. Williams, 2013) was used as a framework for the programme facilitator training. The Supporter's Guidebook (C. J. Williams, 2013) was specifically recommended by Dr Chris Williams (private communication, 22 November 2018), who is the author/creator of the programme. Training included discussion of the booklets, processes, safety, and risk minimisation. At the time the study was conducted the researcher was also undertaking a doctorate in clinical psychology, therefore close adherence to the programme facilitator guidelines (e.g., review sheets,

process/troubleshooting issues, referring participants back to booklet tasks) was done to minimise additional clinical knowledge being introduced into the programme.

Outcome Measures

Participants were invited to complete outcome measures (see below), which were selected, based on similar LI-CBT studies (Lee, 2014; Martyn, 2017; Montagu, 2015; Papworth et al., 2013; C. J. Williams et al., 2018), and established reliability, sensitivity to change and brevity. Participants were asked to complete three outcome measures weekly for three weeks prior (baseline), over the course of the programme (eight weeks) and then again at six- and twelve-weeks post programme. The outcome measures were completed online using google documents which required a link to be sent to the approved email addresses of the participants. Permissions were sought to use digital copies of the outcome measures (PHQ-9, CORE-10, and Q-LES-Q-SF) and were approved for use so long as the questions and rating scales are not significantly altered (see Appendix E). Additionally, the three outcome measures are free to use within the stated copyrights. The Client Satisfaction Questionaire-8 (CSQ-8) was used to capture user satisfaction with the programme and attrition information. The CSQ-8 was completed by participants who finished the programme (*n* = 18); however, the researcher was unable to contact participant non-completers (*n* = 2) to identify reasons for dropping out of the programme (e.g., dissatisfaction with the programme or programme facilitator).

Patient Health Questionnaire Depression 9

The PHQ-9 is an example of a brief self-administered diagnostic measure that is routinely used to screen for depression, depression severity and routinely monitor progress for low-intensity interventions within the IAPT service (Papworth et al., 2013). The tool was developed by Kroenke, Spitzer, and Williams (2001) and was found to have excellent internal reliability in the Primary Health Care (α=.89) and Obstetrics Gynaecology studies (α=.86) with a test-retest reliability alpha of 0.84. The PHQ-9 consists of nine items based on the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; Bell, 1994) criteria for MDD. The PHQ-9 is rated on a 4-point scale (0 to 3) with descriptive labels: ‘not at all’, ‘several days’, ‘more than half’, ‘nearly every day’. Possible scores range from 0 to 27 in which total score correspond to severity

ratings: 0-4 (none), 5-9 (mild), 10-14 (moderate), 15-19 (moderately severe) and 20-27 (severe). Kroenke, Spitzer, and Williams (2001) determined a score of 10 as a suitable clinical cut-off with an 88 percent sensitivity and 88 percent specificity for MDD. Additionally, Manea, Gilbody, and McMillan (2012) suggest that a score range of 8 to 11 is sufficient to determine a diagnosis of MDD, however, a meta-analysis by Moriarty, Gilbody, McMillan, and Manea (2015) found that a clinical cut off 10 was more suitable for primary care (e.g., community) settings rather than secondary care (e.g., hospitals, clinics). The PHQ-9 also compares well to other established psychometric measures for depression such as the BDI-II (Titov et al., 2011), Hospital Anxiety and Depression Scale (Cameron, Crawford, Lawton, & Reid, 2008) and Symptom Checklist 20 (Löwe, Unützer, Callahan, Perkins, & Kroenke, 2004).

A confirmatory factor analysis of the PHQ-9 by Boothroyd, Dagnan, and Muncer (2019) found that a two-factor model (somatic and cognitive-affective) best fit for the PHQ-9 over a single-factor model of depression with a comparative fit index (CFI) of .95 and .92 respectively. Although the two-factor model had a better fit, studies by Boothroyd and associates (2019) and González-Blanch and others (2018) suggest that a one-factor model is more appropriate due to the high correlation between factors (r = .85 – .87) suggesting a high interrelatedness of items with depression.

Additionally, studies have shown that the PHQ-9 has been used repeatedly to monitor response to and treatment change (Ali et al., 2017; Kroenke, (Ali et al., 2017; Kroenke, Spitzer, Williams, & Löwe, 2010; Martyn, 2017; Montagu, 2015; Schueller, Kwasny, Dear, Titov, & Mohr, 2015). However, a mixed method study by Malpass, Shaw, Kessler, and Sharp (2010) found that the PHQ-9 lacked accuracy in identifying the severity and presence of self-harm. The inaccuracy appeared to be due to differences in their interpretation of feeling at risk regarding item 9 (e.g., Thoughts that you would be better off dead or of hurting yourself in some way?), rather than the intensity of self-harm. The study also listed symptoms not assessed in the PHQ-9 that were meaningful to the patients such as their response to treatment and anxiety symptoms which were common across patients with low mood such as loss or return of libido, apathy, collapsing, sense of time, no longer catastrophising, seeing positives, panic, fear (Malpass et al., 2010). This study highlights the importance of discussing risk items when indicated to effectively manage the risk of harm to self and others (i.e., safety screening

questionnaire) and the need for additional outcome measures to capture other meaningful symptoms.

Given the Brevity of the PHQ-9, excellent validity, internal reliability, and sensitivity to detect changes, the PHQ-9 has been used to detect depression severity and monitor change in guided self-help studies (Ali et al., 2017; Forman, 2015; Lee, 2014; Lopes, Meyer, Berger, & Svacina, 2020; Martyn, 2017; McCusker et al., 2016; Montagu, 2015; C. J. Williams et al., 2018). It should be noted that although the PHQ-9 has not been specifically validated for Māori, a New Zealand validation study (Māori; *n* = 7.1%) for the PHQ-9 found the measure was able to detect depression with 74 percent sensitivity and 91 percent specificity at a score of 10 (Arroll et al., 2010).

Ten-item Clinical Outcome Routine Evaluation

The CORE-10 is a shortened version of the 34-item CORE-OM (Evans et al., 2000) and was developed in 2006 by Connell and Barkham (2007); specifically for session-by-session monitoring within United Kingdom primary care and mental health settings (Barkham et al., 2013). The CORE-10 is used to assess psychological distress and is made of 10 items: two items for depression and anxiety, one item for trauma, physical problems, functioning (close, general, social) and risk to self. The items were derived from high and low-severity items from the CORE-OM (Connell & Barkham, 2007). Several confirmatory factor analysis studies have found that CORE-10 has adequate interrelated aspects to capture psychological distress although the factor model varies across studies with sufficient CFI. For example, O'Reilly, Peiper, O'Keeffe, Illback, and Clayton (2016) found a CFI of .99 for a single factor model; Coates, Ayers, de Visser, and Thornton (2020) found a CFI of .95 using a two-factor model (i.e., distress and coping); and Lewis (2016) found a CFI of .98 for six-factor model (i.e., depression, functioning, anxiety).

The CORE-10 consists of ten items that are rated on a five-point scale from 0 to 4 with a score range from 0 to 40 and descriptive labels 0 = Not at all, 1 = Only Occasionally, 2 = Sometimes, 3 = Often, 4 = Most or all the time). The higher the score the higher the level of distress with a decrease denoting improvement. Connell and Barkham (2007) suggest the following severity descriptors for scoring: 0 to 5 healthy, 6 to 9 low-level problems, 10 to 18 mild psychological distress, 15 to 19 moderate distress, 20 to 24 moderately severe, 25+ severe psychological distress (p.6). According to

Barkham and associates (2013) the CORE 10 has excellent internal reliability (α= .90), with a sensitivity value of 0.92 (CI = .83-1.0) and specificity value of 0.72 (CI = .60-.83) at a score of 13. A score of 13 was determined to be the clinical cut-off for depression and 11 for psychological distress.

An advantage of the CORE-10 is that the measure includes functional items not just symptoms like the PHQ-9. K. Cavanagh, Seccombe, and Lidbetter (2011) suggest that incorporating functional items to assess the impact of low mood and functioning. However, due to the brevity of the CORE-10 and its purpose of sessions to session assessment of psychological distress, domains such as wellbeing were excluded and thus not as well rounded as the CORE-OM despite a high correlation with non-clinical populations (α = .92) (Barkham et al., 2013).

Quality of Life Enjoyment and Satisfaction Questionnaire-Short Form

The Q-LES-Q-SF is a 16-item questionnaire developed by Endicott, Nee, Harrison, and Blumenthal (1993). The Q-LES-Q-SF is rated on a five-point scale from 1 to 5: 1= Very Poor, 2= Poor, 3= Fair, 4= Good, 5= Very Good, with a score range of 14 to 70. The overall score is found by summing the first 14 questions and converting the raw score into a percentage maximum (raw score -14)/56). A higher overall score indicates a greater quality of life enjoyment and satisfaction with lower scores denoting the quality-of-life impairments. A community mean score of 78.3 percent (*SD* = 11.3) is indicative of no impairment, with scores less than 70.5 percent indicative of some impairment, and less than 55.70 percent indicative of severe impairment (two standard deviations from the community mean) (IsHak et al., 2013).

According to Schechter, Endicott, and Nee (2007) and IsHak and associates (2013) the Q-LES-Q-SF has excellent internal reliability (α = .90) and test-retest reliability (α = .86). A study by Stevanovic (2011), also found the Q-LES-Q-SF had excellent sensitivity and specificity to change with 80 percent and 100 percent respectively. In the context of depression or low mood, IsHak and associates (2013) found that the Q-LES-Q-SF responses of 319 outpatients with moderate depression had a mean score of 39.8 percent (*SD* = 16.9), which suggests that depression severely impacted on quality-of-life. It should be noted that as the severity of depression decreased following CBT intervention Q-LES-Q-SF increased (Forman, 2015; Jha, Minhajuddin, Thase, & Jarrett, 2014; Martyn, 2017; Montagu, 2015).

Client Satisfaction Questionnaire 8

The CSQ-8 has a long-standing history as a psychometric measure and was developed in 1979 by Larsen et al. (1979) have since shortened the questionnaire from 18 items to 8 items that are based on a four-point scale (Nguyen, Attkisson, & Stegner, 1983). The CSQ-8 has a coefficient alpha between .84 and .93 (Gaston & Sabourin, 1992; Hoek, Schuurmans, Koot, & Cuijpers, 2012; Larsen et al., 1979). The CSQ-8 is typically used after the programme to gauge client satisfaction in similar studies (Lee, 2014; Montagu, 2015; Scheibmair, 2010) however, an issue with using this questionnaire is that the CSQ-8 only provides an overall measure of satisfaction between 8 and 32 points (Montagu, 2015; Nguyen et al., 1983).

Study Procedure

Prospective participants who had an expression of interest were sent an information sheet (see Appendix F), screening questionnaire (see Appendix B), consent form (see Appendix G) and outcome measures (PHQ-9, CORE-10, and Q-LES-Q-SF). The documents were sent to individuals in electronic or paper versions (paid postage included), dependent on preference. Upon receipt of documents and suitability to participate in the study, prospective participants were notified (e.g., telephone or email) of the outcome. Individuals who did not meet the criteria were notified and where necessary (e.g., risk of harm to self or others) appropriate actions were discussed with supervisors (registered clinical psychologists). Individuals who did not meet the criteria were given details about other services which may be able to provide support and were encouraged to contact their local General Practitioner.

Three weeks before beginning the programme was used to provide a baseline in which participants were sent psychometric measures (PHQ-9, CORE-10, and Q-LES-Q-SF) weekly. This was predominantly done electronically through a google document which required a specific link per individual that was sent to the participant's nominated email approximately two days before review sessions. This allowed the researcher to adequately manage risk and monitor progress more effectively. A paper version was provided upon request which included a return envelope; however, this was not the preferred or well-utilised method compared to the electronic version due to the unpredictability of mail services.

Following a three-week baseline period, a face-to-face meeting was organised with participants to provide orientation (e.g., how to use workbooks, the purpose of study, and confidentiality), and an informal whakawhanaungatanga process (Māori cultural custom for building and maintaining relationships/rapport) (S. T. Bennett, 2009). This process was approximately 30 to 60 minutes typically undertaken during the third baseline week. Participants were given the first two booklets (i.e., Write all over the bathroom mirror; Why do I feel so bad?) to begin the following week. The face-to-face meeting was held at a location that was comfortable for the participant (e.g., home, clinic). Ora Toa Mauri Ora and The Psychology Centre offered facilities to meet with participants. Supervisors were notified of home visits before and following completion to maintain safety for the researcher.

Participants received between six and eight, 20–30-minute individual sessions over eight weeks except for Participant 16 who re-entered the workforce during the programme and had unpredictable hours which made it difficult to find suitable session times. Participants were sent reminders via text message during the week to complete booklets and organise upcoming sessions and complete outcome measures. Table 3 shows the sessions per participant. Missed sessions were often due to unforeseen circumstances such as work commitments and tangihanga practices. If sessions were missed the researcher requested that participants send copies of their planner sheet, review sheet, and outcome measures.

Table 3

Sessions and Outcome Measures Completed by Participants

	BL1	BL2	BL3	WK1	WK2	WK3	WK4	WK5	WK6	WK7	WK8	PP6	PP12
Participant 1				X	X	X	X	X	X	X	X		
Participant 2				X	X	X	X	X	X	X	X		
Participant 3				X	X	X	X	X	X	X	X		
Participant 4				X	X	X	X	X	X	X	X		
Participant 5				X	X	X	X	X	X	X	X		
Participant 6				X	X	X	X	X	X	X	X		
Participant 7				X	X	X	X	X	X	X	X		
Participant 8				X	X	X	X	X	X	X	X		
Participant 9				X	X	X	X	X	X	X	X		
Participant 10				X	X	X	X	X	X	X	X		
Participant 11				X	X	X	X	X	X	-	X		
Participant 12				X	X	X	X	X	X	X	X		
Participant 13				X	X	X	X	X	X	X	X		
Participant 14				X	X	X	X	X	-	X	X		

Participant 15			X	X	X	X	X	X	X	X		
Participant 16			X	-	X	X	X	-	-	X		
Participant 17			X	X	-	X	X	X	-	X		
Participant 18			X	X	X	X	X	X	X	X		

Note. X represents completed sessions and - indicates that the session was not completed, and shaded boxes indicate outcome measures not completed for the given week. BL = baseline week; WK = programme week; PP = post-programme week.

A total of seven sessions were missed overall (5%), one session was missed by participants 11 and 14, two sessions were missed by participant 17, and participant 16 missed three sessions. A total of four outcome measure intervals were not completed: one by participants 6 and 17 and two by participant 16. To maintain confidentiality, participant information was anonymised via codification and identifying information stored in a separate and locked cabinet.

Post Treatment Interview

The post-treatment interview involved a semi-structured framework that attempted to explore clients' perceptions of the programme as consumers such as culturally acceptability and recommendations for future adaptations to potentially improve the effectiveness of the LLTTF programme and the wellbeing of Māori. Fourteen (78%) participants volunteered for the semi structured interview. The interview was based on five guiding questions:

- What was helpful?
- What was not so helpful?
- What would you change or include to make the programme more culturally acceptable?
- How would you rate your engagement in the programme?
- How much time were you able to set aside for the programme?

The post-treatment interview was completed before the 6-week post-programme follow-up in which participants were sent outcome measures to complete. During the post-treatment interview the participants were given a 30-dollar Koha (e.g., fuel/food voucher) as a token of appreciation and to maintain acceptable cultural protocols.

Ethical considerations

Ethical approval was gained from the Health and Disabilities Ethics Committee 19/STH/26 in 2018 before commencing the study. Consultation with Kaumatua from

Ngāti Toarangatira was also undertaken to ensure understanding of the study and to obtain cultural support. Acceptance from Kaumatua was well received and provided access to consult with Ora Toa Mauriora, a kaupapa Māori mental health service (https://www.oratoa.co.nz/mauriora). Ora Toa Mauriora management provided access to waitlists, facilities and psychological support if needed. Access to psychological facilities and clinical staff was also available through The Psychology Centre for Hamilton-based participants. It should be noted that the programme facilitator is Māori and as such, undertaking research with Māori it was inevitable and unavoidable that links can be made with participants. To minimise the potential for response bias in an attempt to please, the researcher adhered to the structures and questions outlined in the supporter's guide (C. J. Williams, 2013). Potential conflicts of interest with participants were undertaken before the study. Thus, Ngāti Toarangatira participants were made aware of the professional boundaries, particularly confidentiality and given the right to be included in the programme should the inclusion criteria be met.

Risk Analysis

To minimise the level of risk, several considerations and protocols were instated. The first was the use of a screening questionnaire which attempted to exclude complex mental health disorders such as addiction and personality disorders and to stay within the parameters of mild to moderate low mood. This was determined primarily on the PHQ-9 in which scores between 5 and 19 qualify for inclusion. Potential participants with scores above 20 were generally excluded (dependent on social support) from participating and advised to visit their local GP. An exception was given for participant Seven due to high motivation and strong social support.

Question nine on the PHQ-9 is a question of suicidal ideation in which any indication was investigated further. This involved the following questions:

- What kind of thoughts do you have?
- How likely are you to act on that thought on a scale of 0-10?
- Have you acted on suicidal thoughts previously?
- What stopped you from acting on those thoughts?

Given the high occurrence of suicidal ideation and low mood, it was impractical to exclude all potential participants. Therefore, it was important to determine whether these thoughts were active or passive, the difference between having thoughts of killing

myself but I would not carry them out versus I would like to kill myself and have the means to do so. Participants were asked after every session whether they had thoughts of self-harm and or suicidal ideations. Self-harm risks were also monitored on the PHQ-9 throughout the duration of the course. Other causes for concern that were red flagged was:

- The participant is missing appointments.
- The participant is becoming more distressed or low.
- The participant is expressing suicidal ideation or for whatever reason worries the facilitator.

Any indication of risk to self was red flagged and discussed with supervisors who were responsible for final decisions to include or exclude from the programme and if the participant needed to be referred to the appropriate services.

Analytical Approach

Research Model

Efficacy of LLTTF.

Longitudinal Multilevel modelling (LMLM) was employed as the primary analytic approach for this study. MLM has become a popular technique, particularly for social and behavioural sciences for analysing data that is for example nested (i.e., data collected from individuals within a group) (Heck, Thomas, & Tabata, 2021; Singer & Willett, 2003). Several advantages of LMLM are that it allows for unbalanced data and sample sizes whilst optimising the probability of finding conclusions (e.g., true change over time) where the variance between individuals may be large (Hox, Moerbeek, & Van de Schoot, 2017).

To explore change trajectories Singer and Willett (2003) suggest a two-level multilevel model for change that treats time as a continuous variable. Therefore, MLM attempts to Increase precision and explain variance within and between participants in which to make inferences regarding change over time. This can be done by adding predictor variables and exploring the effect on change trajectories. Furthermore, a cross-level interaction between the time an additional predictor can be used to determine if different rates of change (e.g., time) are affected by the level of the predictor variable (Singer & Willett, 2003).

Acceptability of LLTTF Programme.

To analyse the applicability and acceptability (e.g., individual and cultural level) of the LLTTF programme a mixed method approach was employed, in which Kaur (2016) argues that it provides a more comprehensive understanding of health research. To assess the cultural acceptability of the LLTTF programme qualitative and quantitative approaches were used. The quantitative approach uses the CSQ-8, a psychometric questionnaire which provides a single measure of client satisfaction. However, Montagu (2015) suggests that the CSQ-8 lacks nuances in client experience. Therefore, to provide a greater understanding of participants' perspectives semi-structured interviews were undertaken following the completion of the programme. The semi-structured interviews provided the basis for the secondary analytic approach, thematic analysis (see thematic analysis section below).

Thus, the primary analytic approach for the current study was LMLM. The secondary analytic approach was thematic analysis. A mixed method analytic approach was used to provide a well-rounded evaluation of the effectiveness of the LLTTF eight-week programme and Māori participants experiencing mild to moderate low moods in a community setting.

Research Design

The primary research design used a two-level multilevel model, repeated measure (13 waves: PHQ-9, CORE-10, Q-LES-Q-SF) individual longitudinal design. The secondary research design incorporated a quantitative (e.g., CSQ-8) and qualitative approach (e.g., thematic analysis) to explore the cultural acceptability of the LLTTF programme with Māori participants.

The independent variables for this study were time and the dependent variables were low mood (PHQ-9), psychological distress (CORE-10), and quality of life enjoyment and satisfaction (Q-LES-Q-SF). The CORE-10 and Q-LES-Q-SF were also used as independent variables (predictor and moderator variables) for low mood (PHQ-9). This was done to explore if psychological distress and quality of life enjoyment and satisfaction can be used to explain individual and group differences in variance and thereby increase the precision and predictability of individual and group trajectories. This approach was undertaken to simplify the model rather than modelling each dependent variable separately. Table 4 is provided below to give a visual map of the

research framework and procedures that underpin the analytical approach of the current study.

Table 4

Research Design for the Current Study

Prospective Participants				
Screening Questionnaire	**Information Sheet**			**Consent form**
Baseline One	PHQ-9	CORE-10	Q-LES-Q-SF	
Baseline Two	PHQ-9	CORE-10	Q-LES-Q-SF	
Baseline Three	PHQ-9	CORE-10	Q-LES-Q-SF	
Orientation				
8-week Programme Begins				
Week One	PHQ-9	CORE-10	Q-LES-Q-SF	Session one
Week Two	PHQ-9	CORE-10	Q-LES-Q-SF	Session Two
Week Three	PHQ-9	CORE-10	Q-LES-Q-SF	Session Three
Week Four	PHQ-9	CORE-10	Q-LES-Q-SF	Session Four
Week Five	PHQ-9	CORE-10	Q-LES-Q-SF	Session Five
Week Six	PHQ-9	CORE-10	Q-LES-Q-SF	Session Six
Week Seven	PHQ-9	CORE-10	Q-LES-Q-SF	Session Seven
Week Eight	PHQ-9	CORE-10	Q-LES-Q-SF	Session Eight
CSQ-8 and Semi Structured Interview				
6-week post programme	PHQ-9	CORE-10	Q-LES-Q-SF	
12-week post programme	PHQ-9	CORE-10	Q-LES-Q-SF	

Data Management

Person Period Data.

Participants' outcome measures scores were converted from person-level data to personal period data using SPSS (IBM Corp, Released 2020). This allowed for individual data to be formatted in a univariate format for each outcome measure (e.g., PHQ-9, CORE-10, Q-LES-Q-SF) which allows for new waves of data but does not create new variables (Singer & Willett, 2003).

The data were converted from person level to person period format before beginning analysis. The univariate format allows data to be stacked vertically creating multiple records or cases per measurement occasion rather than new variables which according to Singer and Willett (2003) is more suitable for analysing longitudinal change over time by allowing data to be sorted by individual records and across time periods.

Figure 2

Example of a Conversion from Person-level Data Set into a Person-Period Data Set

"Person-level" data set

ID	WK1	WK2	WK3	AGE	MALE
1	13	11	10	20	1
2	15	12	9	21	0
3	11	8	5	22	1

"Person-Period" data set

ID	AGE	WEEK	MALE
1	20	1	1
1	20	2	1
1	20	3	1
2	21	1	0
2	21	2	0
2	21	3	0
3	22	1	1
3	22	2	1
3	22	3	1

Missing Data.

According to Schafer (1999) on average missing data in research was around 15 percent to 20 percent. Schafer (1999) also suggested that 5 percent or less of missing data can be considered inconsequential. Missing data can be problematic and should be investigated to determine the impact of missing data on analyses. According to Rubin (1976) data that is missing completely at random (MCAR) or missing at random (MAR) can be ignored as no systematic mechanism is underlying the missing data (Heck et al., 2021; Schafer & Graham, 2002). Furthermore, Glas (2010) suggests that data determined to MCAR should have minimal impact on the outcome of interest and treatment effects.

Outcome measures were screened to identify missing data. Missing data was determined by missing items on outcome measures and outcome measures not completed. No questions were missed on the PHQ-9 and CORE-10, Q-LES-Q-SF. However, 12 outcome measures (PHQ-9, CORE-10, Q-LES-Q-SF) were not completed out of a maximum total of 702 (234 per outcome measure; maximum total of 39 per participant). The four missing waves of outcome measures were from a total of three participants: two participants who missed one wave of outcome measures and one participant who missed two waves of outcome measures (see table 4 above). In total,

approximately 1.7 percent of the data was missing overall. Little's MCAR was employed to investigate missing data. The missing data was determined to be non-significant (see Appendix I). Therefore, considering the low percentage of missing data overall, literature (Glas, 2010; Schafer, 1999), and that missing data were considered MCAR and non-significant, outcome data were not adjusted to compensate for missing data.

Coding Time.

One of the benefits of an MLM approach is that time can be treated more flexibly. Treating time more flexibly allows for more meaningful codification of time which may simplify and improve the interpretability of longitudinal data (Heck et al., 2021; Singer & Willett, 2003). Heck, Thomas and Tabata (2021) suggest coding linear time starting at zero with subsequent intervals that are equal distance which allows intercepts to reflect changes in rates of change over measurement occasions. For this purpose, the variable of time which constituted 13 waves of data intervals was converted to reflect the metric of a week, consistent with a similar and recent study by Martyn (2017). Therefore, time was coded between 0 to 22 weeks: 0 to 2 (baseline); 3 to 10 (programme delivery); 16 (6 weeks post-programme follow up); and 22 (12 weeks post-programme follow up). The premise for tracking participants for 12 weeks post programme allowed for exploration of the duration of change and decay. Similarly, baseline tracking allowed for exploration of symptoms (e.g., stable across time; sudden gains) before the intervention.

Sample Size.

The accuracy of MLM estimates depends on sample sizes to provide adequate power to detect statistical effects and provide reliable estimates (Hox et al., 2017). This becomes more important as models increase in complexity and levels (Heck et al., 2021). However, large sample sizes are generally considered more favourable to improve the power to detect statistical effects (Hox et al., 2017; Hoyle & Gottfredson, 2015; Singer & Willett, 2003). A simulation study conducted by C. J. Maas and Hox (2005) found that sample sizes less than 50 may bias the second level standard errors, whilst level one estimates, and standard errors remained accurate and unbiased. Regarding the longitudinal design of this study Kwok and associates (2008) argue that adding more waves of data increases the reliability of estimates. Furthermore, using a two-level

model minimises the complexity and associated power needed (i.e., larger same size) maximises the potential to find the presence of an effect (Kwok et al., 2008).

Insufficient statistical power due to a small sample size may lead to type 1 errors, where the null hypothesis is rejected when in fact it is true (Coar, 2019; Snijders, 2005). Secondly, data may also have convergence problems (Hox et al., 2017). Finally, a small sample size may lead to a negative variance (Hamaker & Klugkist, 2011; C. J. M. Maas & Hox, 2004; Okada, 2017; Stroup & Littell, 2002). A negative variance may occur for example due to a small sample size, large variances between data, negatively correlated data, and outliers (Hocking, 1983; Okada, 2017). A common practice to fix negative variances has been to constrain negative variance estimates to zero (C. J. M. Maas & Hox, 2004; Singer & Willett, 2003). However, Stroup and Littell (2002) found that constraining negative estimates to zero may increase the likelihood of type 1 errors, through a loss of power and excessively conservative testing. Stroup and Littell (2002) and Okada (2017) suggest that small negative variances should be presented as is, even though zero is the most plausible result. Therefore, small negative variance estimates likely indicate data points that are very close to the mean and each other (i.e., zero).

The current study had 18 participants individually complete the LLTTF programme with 13 points of data collection using the PHQ-9, CORE-10, and Q-LES-Q-SF. The study had to balance statistical power against cost and time available to the researcher (Moerbeek, Van Breukelen, & Berger, 2001). Therefore, the current study had 13-time data points at level one and 18 outcome measure data points at level two to explore effects of change in low mood, psychological distress, quality of life enjoyment and satisfaction over time using the LLTTF programme.

Assumptions Checks.

To conduct LMLM using OLS regression, linearity, normality, and homogeneity of the variance (homoscedasticity) were checked (Heck et al., 2021; Hox et al., 2017; Singer & Willett, 2003; Tabachnick, Ullman, & Fidell, 2019). Data from Low mood models were used to check for linearity, normality, and homoscedasticity. This provides residual data from a progression model more consistent with the research hypothesis (e.g., change in low mood over time) rather than primitive versions (e.g., raw outcome measures) (Martyn, 2017). Scatter plots and normal probability plots (P-P Plots) were used to

visually check for linearity, normality, and homoscedasticity. To check for normality a P-P Plot was used in which residual data should generally follow a diagonal line.

Additionally, normality can be visually inspected using a scatter plot (using standardised residuals and standardised predicted values) in which plots should be distributed randomly around the centre. As a general rule (Singer & Willett, 2003) suggest that 95 percent of standardised residuals should be within $\pm$ 2 SD of the centre. To check linearity and Homoscedasticity, a scatter plot (using standardised residuals and standardised predicted values) was used to visually inspect residuals in which (Tabachnick et al., 2019) state that the distribution of data should approximate a rectangular shape (linearity) and similar width (homoscedasticity).

Inspection of P-P Plots for the current study showed a roughly diagonal linear line with minor deviations across all three outcome measures (see Appendix H). Scatter plots (standardised residuals against predicted values) across all three outcome measures appeared to have roughly equal variances throughout with randomly distributed plots around the centre (see Appendix H). Therefore, the P-P plots and scatter plots for the current study indicate no significant violations of linearity, normality, and homoscedasticity and thus assumptions were considered to have been adequately met and therefore warranted the use of LMLM.

Reliability of Outcome Measures.

To assess the internal consistency of the PHQ-9, CORE-10, and Q-LES-Q-SF, a reliability analysis was undertaken using Cronbach's alpha. A Cronbach alpha value was calculated for every measurement of time for the PHQ-9, CORE-10, and Q-LES-Q-SF. An internal consistency matrix by Ponterotto and Ruckdeschel (2007) suggests a Cronbach's alpha of .65, .70, .75, and .80 as indicative of fair, moderate, good, and excellent ratings of internal consistency for psychometrics with 7 to 11 items and sample sizes less than 100. However, a Cronbach alpha of α = .70 or higher is generally considered to be an acceptable level of internal consistency (Taber, 2017).

The overall Cronbach's alpha estimates calculated for the current study for the PHQ-9 was .84 (α = .712 to .929); CORE-10 was .79 (α = .606 to .885); and Q-LES-Q-SF was .89 (α = .646 to .964). All three outcome measures had an average Cronbach's alpha above the acceptable level of α = .70. Findings from the reliability analysis for the

current study compare similarly to recent New Zealand LI-CBT studies (Martyn, 2017; Montagu, 2015) and support the sound internal consistency of the outcome measures from validation studies (Barkham et al., 2013; Endicott et al., 1993; IsHak et al., 2013; Kroenke et al., 2001) in which the PHQ-9, CORE-10, and Q-LES-Q-SF remain reliable psychometric measures for the current study to monitor change in low mood, psychological distress, and quality of life enjoyment and satisfaction (see Appendix E).

Quantitative Data Analysis

Statistical Software

To perform statistical analysis, version 27 of the IBM SPSS software package (IBM Corp, Released 2020) was used to analyse data.

Preliminary Analysis

A preliminary analysis was done primarily by exploring descriptive statistics (such as mean, r^2, variance, intercepts, and slopes), visual examination using scatter plots (empirical growth plots), line graphs (e.g., OLS regression lines) and bivariate correlations.

Exploring the Overall Mean Trajectory of Change Using Ratings on the PHQ-9, CORE-10, and Q-LES-Q-SF.

Participant's overall ratings on the PHQ-9, CORE-10, and Q-LES-Q-SF were used to provide a visual analysis of the average change trajectory over time. This was done using a line graph which included clinical cut-offs and descriptive statistics (e.g., means, standard deviations).

Exploring Differences in Individual Trajectories

Assessment of the variance within- and between-person justify the use of LMLM should sufficient variance be found (i.e., non-zero variance component) (Singer & Willett, 2003). Participants rating on outcome measures were explored using empirical growth models obtained from OLS regression analysis. OLS regression models estimate individual intercepts (constant) and rates of change (slopes) which allowed the evaluation of similarities and differences in individual and group change across time. To provide a visual analysis, Individual empirical growth plots were graphed with an OLS regression line superimposed (e.g., rate of change). To explore group variation, Individual OLS regression lines from all study participants are graphed against the

group's average intercept and rate of change. Group average intercept and rate of change between males and females were also calculated to explore similarities and differences between gender. Finally, an examination of summary statistics (e.g., OLS means, OLS standard deviations, R^2, standard error) provides rationale to determine the need for LMLM.

Exploring the Interaction and Correlation Between Primary Outcome Measures

To identify potential predictor variables, individual intercepts (constant) and rate of change (slope) for the PHQ-9, CORE-10, and Q-LES-Q-SF are compared using a two-tailed bivariate Pearson's correlation. To explore the interaction of the outcome measures, individual ratings on outcome measures were standardised using Z-scores. A logarithmic trend line superimposed provides a visual representation of increases and decreases in the rate of change over time. To explore gender similarities and differences, standardised outcome measure ratings for males and females fitted with logarithmic trend lines are visually examined.

Multilevel Modelling for Change Analysis

Defining Model Estimates

A general outline of model estimates for the current study includes fixed effects, variance components, Pseudo R^2, -2 log likelihood (-2 LL), Chi-squared change statistic (χ^2 Change), and Bayesian Information Criterion (BIC).

Fixed Effects

The fixed effect estimates the true average change trajectory (i.e., fitted intercepts, fitted slopes) in low mood. Subsequent modelling includes the predictors of psychological distress (CORE-10) and quality of life enjoyment and satisfaction (Q-LES-Q-SF) (see below, model C^1 and Model C^2) to estimate participant's average psychological distress or quality of life enjoyment and satisfaction over time and the direction of the relationship of participants slopes to low mood. Using the ratings for CORE-10 and Q-LES-Q-SF as predictor variables from a parsimony point of view allows for inferences to be made regarding participant change in psychological distress and quality of life enjoyment and satisfaction whilst allowing for a simplification of the modelling series.

Variance Components

To assess the spread of data around the mean associated with every model, the within- and between-person variance was calculated. Subsequent modelling through the addition of predictors should improve on previous models.

Goodness of Fit Statistics

The Pseudo R^2, -2 LL and BIC were calculated to provide a comparison between models to assess improved model fit. The Pseudo R^2 shows the percentage of variance explained between two models usually based on the unconditional means model and compared to the subsequent model. However, the implementation of time-variant predictor variables changes the meaning of the growth parameters (Singer & Willett, 2003). Although level one residuals (within-person) are still interpretable, Singer and Willett (2003) argue that level 2 components (between-person) pseudo R^2 statistics should not be used, in which model fit should be determined on the fixed effects and other goodness of fit statistics (e.g. -2LL, BIC).

The -2 LL statistics is a general deviance statistic that can be used to compare two models in the same series (e.g., nested) to assess overall improved model fit. The deviance statistic is sample size dependent although zero indicates a perfect model fit. Thus, improved model fit is determined by a lower deviance value between subsequent models. To determine whether the difference in deviance value is significant a Chi-squared statistic based on the difference in magnitude in -2LL (χ^2 Change) between models. BIC is like log-likelihood statistic but decreases the log-likelihood by the number of parameters and sample size (Singer & Willett, 2003). A smaller BIC value between models is indicative of a better model fit.

Model Progression

This section describes the LMLM model progression for the current study. Models were categorised by letters starting with A and subsequent letters (e.g., B, C) representing successive models. A superscript number following the model letter represents the same model but with a different predictor (e.g., CORE-10, Q-LES-Q-SF). Thus, *Model A* is the unconditional means model; *Model B* is the unconditional growth model which includes the variable of time; *Model* C^1 is the unconditional growth model with the added effect of quality-of-life enjoyment and satisfaction (Q-LES-Q-SF) and the

interaction of the predictor variable by time. *Model C*^{2} is the unconditional growth model with the added effect of psychological distress (CORE-10) and the interaction of predictor variable x time. Additionally, Model A assumes intercepts vary between participants. Model's B, C^1, and C^2 assume participant's initial status and rate of change vary between participants over time.

Linear Mixed-Effect Multilevel Modelling

Model A: Unconditional Means Model

Model A is the unconditional means from the PHQ-9 (i.e., low mood) data when the intercept varies by participant. The unconditional means model estimates the grand mean across participants (γ^{00}) without the variable of time (e.g., rate of change). This model is recommended as the first model to assess sufficient variation to warrant further investigation and provide baseline measurements for comparisons with successive models (Singer & Willett, 2003).

Model B: Unconditional Growth Model

Model B includes the predictor variable of time and estimates changes in PHQ-9 (i.e., low mood) rates of change. *Model B* estimates a linear change model in low mood rates of change when the intercepts vary by participant and time. The unconditional growth model estimates the initial status (γ^{00}; Intercept) and the average participant rate of change trajectory (γ^{10}; slope). Comparison with *Model A* using a Pseudo R^2 statistic provides the percentage of within-person variation accounted for by linear time. Variance estimates represent individual's average scatter around their true change trajectory ($\sigma^2\varepsilon$); unpredicted variability in intercept (σ^2O) and unpredicted variability in the true rate of change (σ^21).

Model C^1: The Effect of Quality-Of-Life Enjoyment and Satisfaction

Model C^1, adds the effect of Q-LES-Q-SF (γ^{01}) and interaction of the Q-LES-Q-SF $\times$ time (γ^{11}) to *Model B*. The predictor variable Q-LES-Q-SF was grand mean centred. This improves interpretability to examine changes in the magnitude of the intercept relative to the mean of the centred predictor whilst retaining the same distribution (i.e., standard error, variance) (Heck et al., 2021). Additionally, standard errors of the estimates can be compared to examine for model precision (Singer & Willett, 2003).

Model C[1] fixed effects explores the significance of quality-of-life enjoyment and satisfaction to predict low mood rates of change (γ^{01}) and estimates the differential in the rate of change in low mood over time (i.e., per week) for every unit increase of Q-LES-Q-SF (γ^{11}; interaction between Q-LES-Q-SF $\times$ time). Variance components estimate the amount of variance explained by the model after controlling for Q-LES-Q-SF. The goodness of fit and deviance statistics provides an assessment of the improved model fit between Model B and Model C[1].

Model C*[2]*: The Effect Of Psychological Distress

Model C[2], adds the effect of CORE-10 (γ^{02}) and interaction of CORE-10 by time (γ^{12}) to *Model B* in which the predictor variable CORE-10 was grand mean centred.

Model C[2] fixed effects explore whether the effect of psychological distress to predict low mood rates across the intervention period and significant differences in the rate of change in low mood over time (i.e., per week) for every unit increase of CORE-10 (interaction between CORE-10 $\times$ time). Variance components estimate the amount of variance explained by the model after controlling for CORE-10. The goodness of fit and deviance statistics provides an assessment of the improved model fit between *Model B* and *Model C*[2].

Qualitative Data Analysis

Qualitative data was collected using a semi structured interview to gather the information necessary to conduct a thematic analysis. The time point for the interview was considered appropriate as the intervention had ended in which participants could reflect on their experiences whilst the programme was still vivid in their memory. Semi structured interviews were conducted face to face or by using the telephone, according to participants preference. The semi structured interview was voluntary and were between 15 and 30 minutes in duration. Information was recorded using a smart phone and or computer. The interviews were then transcribed into a Microsoft Word document and returned to participants by email to edit and approve use.

Thematic Analysis

Thematic analysis was used to analyse interview data and identifies patterns, themes and insights that may not be captured with quantitative analysis (Alexander, Thomas, Cronin, Fielding & Moran-Ellis, 2015). An inductive thematic analysis approach

allows themes to emerge naturally from participant data (MacQueen, Guest, & Namey, 2012). Terry, Hayfield, Clarke, and Braun (2017) provide six steps to conducting thematic analysis which were generally followed in the analysis for this study: Familiarisation; Coding; Constructing themes; Reviewing potential themes; Defining and name themes; Producing report (p. 23).

A strength of thematic analysis is that it provides flexibility in the approach used allowing for adaptation (Braun & Clarke, 2006). In this way a bottom-up approach and use of participants quotes to support themes may better represent participants views, perception, and experience of using an unadapted programme in a more authentic way for Māori (Kalibatseva & Leong, 2014; Haitana et al., 2020; Shepherd et al., 2015). In other words thematic analysis can provide a greater depth of understanding to research phenomena, such as user satisfaction, perspectives, and cultural considerations and is a cultural acceptable method to understand Māori experiences in mental health (Haitana et al., 2020; Palinkas, Mendon, & Hamilton, 2019). Therefore, after reading through participant transcripts, quotes were extracted and grouped into similar themes using a Microsoft excel spreadsheet. The broad themes were identified inductively and after review were summarised and evidenced using quotes from multiple participants to provide a platform for Māori participants voices to be heard in a more authentic way.

CHAPTER 7: RESULTS

Chapter Overview

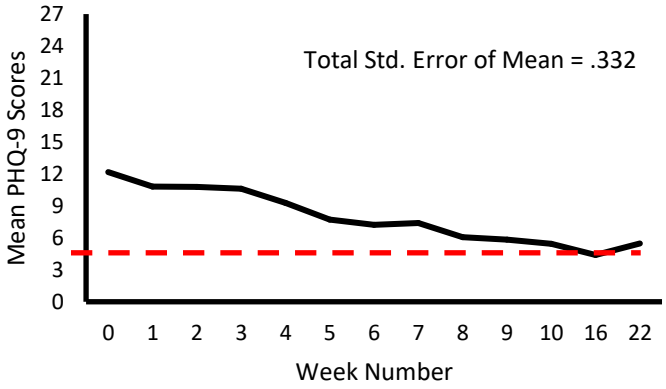
This chapter explores the results of the LLTTF programme with Māori participants obtained from outcome measurements (PHQ-9, CORE-10, Q-LES-Q-SF, CSQ-8) and semi-structured interviews. A preliminary analysis using descriptive and differential statistics explores participants change over the LLTTF programme and to provide a rationale for LMLM. The presentation of the results was done in five main sections. Sections one to three used visual analysis to explore the variation in outcome measures using descriptive data, OLS regression, and correlational analysis. Section four provides the results of LMLM which fits a linear mixed effect model to participants' low mood data to explain variance in average change trajectories. Therefore, sections one to four provide evidence to make inferences regarding the efficacy of the LLTTF programme on low mood, psychological distress, and quality of life enjoyment and satisfaction. Finally, section five explores client satisfaction and cultural acceptability of the LLTTF programme using data from the CSQ-8 and semi-structured interviews.

Section One: Exploring Overall Mean Ratings Of Change on the PHQ-9, CORE-10, and Q-LES-Q-SF

A preliminary analysis was undertaken to provide general descriptors of participants' overall mean ratings of outcome measures across time: PHQ-9, CORE-10, and Q-LES-Q-SF. The results are displayed below. Figure 3 shows overall mean ratings in low mood over time, Figure 4 shows overall mean ratings in psychological distress over time and Figure 5, shows overall mean ratings in quality-of-life enjoyment and satisfaction over time.

Figure 3

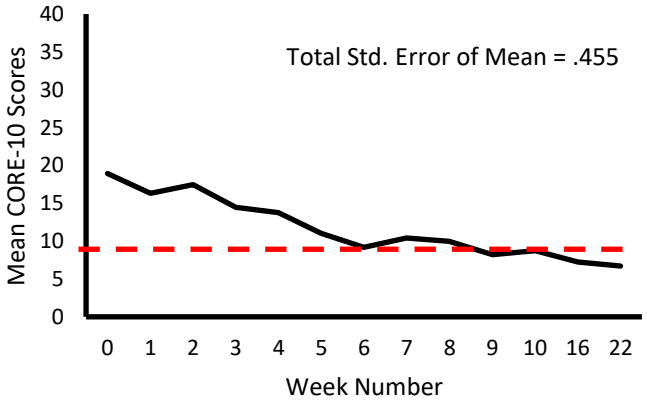
Overall Mean PHQ-9 Severity Changes Over Time



Note. Clinical Cut-off Marked by Red Dashed Line.

Figure 4

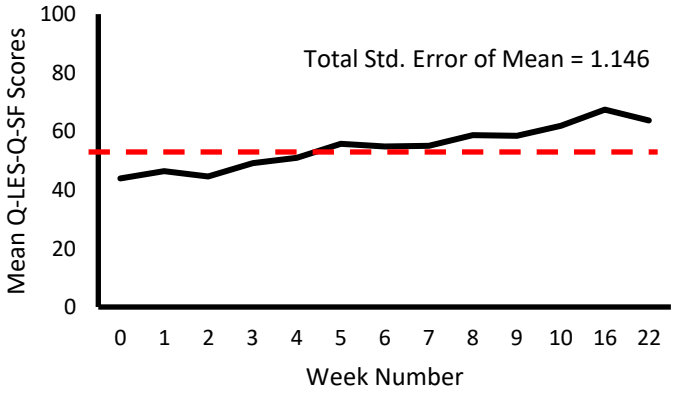
Overall Mean CORE-10 Severity Changes Over Time



Note. Clinical Cut-off Marked by Red Dashed Line.

Figure 5

Overall Mean Q-LES-Q-SF Severity Changes Over Time



Note. Clinical Cut-off Marked by Red Dashed Line.

Overview: PHQ-9.

Figure 3 showed the mean score for PHQ-9 was within the moderate range (10-14) of severity at baseline one (*M* = 12.17, *SD* = 4.09). Participants scores tended to decrease from baseline one to baseline two and three but remained consistent through to week one. Mean scores decreased overall from week one and by week eight the mean score reached the mild range (5-9) (*M* = 5.44, *SD* = 4.31). At six weeks post programme, the mean PHQ-9 score was within the normal or minimal low mood range (0-5) (*M* = 4.39, *SD* = 4.62). However, scores increased slightly at 12 weeks post programme (*M* = 5.47, S*D* = 5.74) comparative to scores observed at week eight. The total PHQ-9 average was 7.93 (*SD* = 4.46) with a total standard error of the mean of .332.

Exploring change differences in PHQ-9 scores (see Appendix K-1) from intake (i.e., average baseline) to week eight identified nine participants (1, 4, 9, 10, 11, 12, 14, 17, 18) who had reduced their scores by 50 percent or more. By six weeks post programme, 14 participants (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 17, 18) had reduced scores by at least 50 percent, and one participant (15) worsened by 50 percent from intake. At 12 weeks post programme 11 participants (1, 3, 4, 7, 8, 9, 10, 12, 14, 17, 18) had reduced PHQ-9 scores by at least 50 percent and one participant (15) worsened by at least 50 percent from intake.

Overview: CORE-10.

The mean score for the CORE-10, as shown in Figure 4, was in the moderate range (15–19) of severity at baseline one (*M* = 18.94; *SD* = 6.10). A general pattern at baseline was consistent with PHQ-9. The mean CORE-10 score decreased from week one and by week eight the mean score fell within the non-clinical range (< 10) (*M* = 8.72; *SD* = 7.09). Similarly, to the PHQ-9, progress appeared to slow between week three and week six before CORE-10 scores continued to decrease through to twelve weeks post programme (*M* = 6.82; *SD* = 6.36). The overall mean score for CORE-10 was 11.80 (*SD* = 5.86) with a total standard error of the mean of .455.

Participants changes in CORE-10 scores (see Appendix K-2), from intake (i.e., average baseline) to week eight identified 10 participants (1, 4, 7, 9, 10, 11, 12, 14, 17, 18) with reduced CORE-10 scores of at least 50 percent or more from intake. By six weeks post programme, 12 participants (1, 2, 3, 4, 5, 7, 9, 10, 11, 14, 17, 18) had

reduced CORE-10 scores by at least 50 percent, and one participant (15) increased by 50 percent or more from intake. At 12 weeks post programme, 12 participants (1, 3, 4, 5, 6, 7, 9, 10, 11, 12, 17, 18) had reduced their scores by at least 50 percent or more from intake.

Overview: Q-LES-Q-SF.

According to Figure 5, the baseline mean score for the Q-LES-Q-SF was within the severe impairment to quality-of-life range (> 55.70) (*M* = 43.89; *SD* = 9.517). Q-LES-Q-SF scores remained stable across the baseline. From week one to week eight the mean Q-LES-Q-SF score improved from the 'severe impairment' to the 'some impairment' range (*M* = 61.78; *SD* = 1.16). The mean Q-LES-Q-SF score followed a similar pattern to the PHQ-9 post programme in which improvements peaked at six weeks post programme (*M* = 67.39; *SD* = 21.16) and slightly decreased by twelve weeks post programme to 63.65 (*SD* = 21.23). The overall mean for Q-LES-Q-SF scores is 54.57 (*SD* = 17.38) with a total standard error of the mean of 1.15.

Change scores from intake (i.e., average baseline) to week eight on the Q-LES-Q-SF (see Appendix K-3) identified seven participants (7, 9, 10, 14, 16, 17, 18) who had improved Q-LES-Q-SF scores of at least 50 percent and one participant (15) decreased by at least 50 percent from intake. By six weeks post-programme, ten participants (5, 6, 7, 9, 10, 11, 14, 16, 17, 18) improved Q-LES-Q-SF scores by at least 50 percent from intake. At 12 weeks post programme, seven participants (3, 5, 7, 9, 12, 14, 18) had improved Q-LES-Q-SF scores by at least 50 percent or more and one participant (15) decreased at least 50 percent or more from intake. This indicates most participants improved in psychological distress severity in which improvements were observed up to 12 weeks post programme.

Section Two: Exploring Differences in Individual Trajectories

This section explored participants' outcome measure scores (e.g., PHQ-9, CORE-10, and Q-LES-Q-SF) using OLS regression. OLS growth plots and growth trajectories were presented visually to examine the variability within, and between participants.

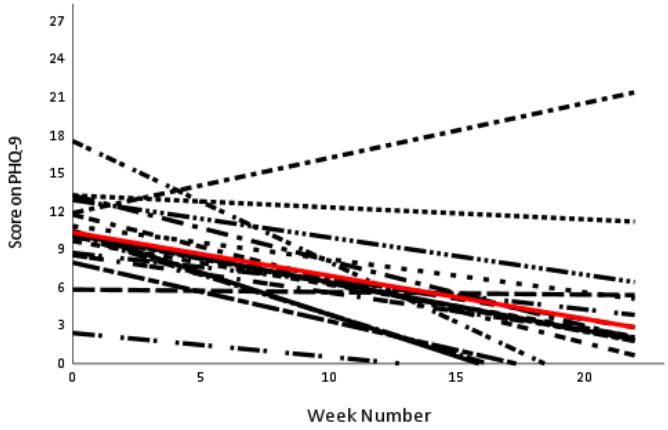
OLS Analysis of Participants' Ratings on PHQ-9.

Individual and average OLS growth trajectories (red line) is presented in Figure 6. To examine the between person variation of PHQ-9 ratings over time, Figure 7 shows participants individual empirical growth plots superimposed with fitted OLS growth

trajectories. It should be noted that week number 0 to 2 represent weekly pre-programme measurements (baseline), week number 3 to 10 represent programme delivery and week number 16 and 22 represent six- and 12-weeks post-programme respectively.

Figure 6

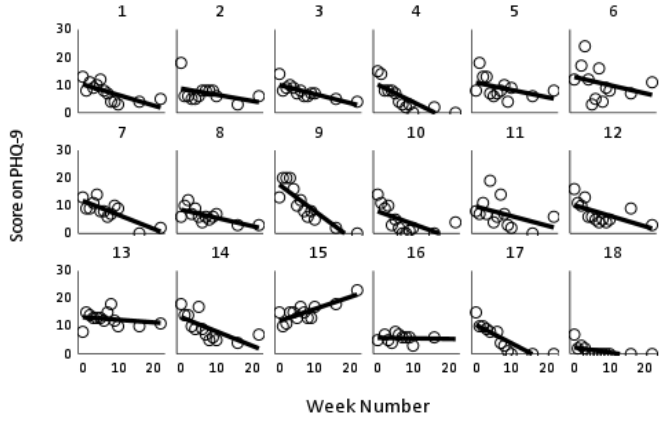
Individuals and Average Fitted OLS Trajectories of Changes in Low Mood Severity Over Time Obtained from Participants' PHQ-9 Ratings



Note. Red Line Represents the PHQ-9 Average Change Trajectory for the Entire Group.

Figure 7

Individual PHQ-9 Growth Plots with Superimposed Fitted OLS Trajectory



The average OLS trajectories for individual participants, as shown in Figure 6, indicated an average initial status (intercept) estimate on the PHQ-9 of 10.37 (*SD* = 3.22) with an estimated average rate of change (slope) of -.50 (*SD* =.40) units per week. The magnitude of the standard deviations indicated that participant OLS trajectories were scattered widely around the average, and that participant fitted initial status and fitted rate of change varied considerably. The result of Pearson's correlation between initial

status and rate of change was not statistically significant (*r* = -.06). This suggests that there is no significant relationship between the level of PHQ-9 severity at baseline and rates of change (e.g., high initial status led to a faster, or slower rate of change).

Figure 7 showed heterogeneity between individual growth plots with steady (e.g., participant 3) and sporadic (e.g., participant 6) increases and decreases in participants' PHQ-9 ratings from week to week. Participant's OLS trajectories indicated a rate of change range between .80 and -.87 units per week (see Table 5 below). Overall, 11 participants achieved statistically significant improvement in low mood, one participant (15) significantly worsened, and six participants (2, 5, 6, 11, 13, 16) had no significant change in PHQ-9 ratings over the duration of the study.

Table 5

Participants' OLS trajectories for PHQ-9 with associated standard error and R^2

	PHQ-9				
	Initial Status		Rate of Change		
Participant ID	Estimate	Error	Estimate	Error	R^2
1	10.263	1.083	-0.702	0.116	0.493
2	8.746	1.497	-0.385	0.161	0.148
3	10.017	0.695	-0.795	0.075	0.632
4	10.180	1.320	-0.800	0.142	0.640
5	10.867	1.529	-0.432	0.164	0.186
6	12.925	2.886	-0.298	0.298	0.089
7	11.769	1.049	-0.804	0.113	0.646
8	8.577	0.858	-0.695	0.092	0.483
9	17.578	1.536	-0.867	0.165	0.751
10	7.982	1.723	-0.599	0.185	0.359
11	9.681	2.095	-0.417	0.225	0.174
12	10.199	1.456	-0.593	0.157	0.352
13	13.288	1.148	-0.224	0.123	0.050
14	13.292	1.568	-0.677	0.169	0.458
15	11.903	0.905	0.802	0.097	0.643
16	5.855	0.817	-0.062	0.107	0.004
17	10.516	1.237	-0.851	0.129	0.724
18	2.418	0.771	-0.563	0.089	0.317

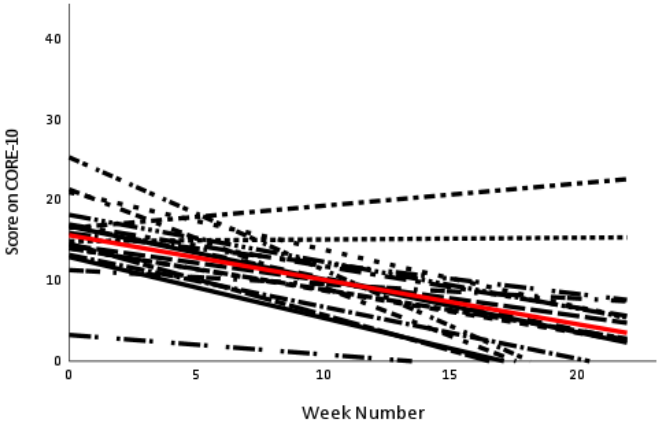
Table 5 showed the individual initial status and rate of change estimates including standard error and R^2 values. Overall, the variance explained by OLS modelling varied from less than one percent to 75 percent and indicated that the R^2 values vary widely across participants. Except for participant 15, all slopes (rates of change) were negative suggesting that over time participants tended to improve in low mood.

OLS Analysis Of Participants' Ratings on CORE-10.

Individual and average OLS growth trajectories (red line) is displayed together in Figure 8 for group comparison. Figure 9 superimposes a fitted OLS growth trajectory over individual empirical growth plots to examine variation in participants CORE-10 ratings over time. It should be noted that week number 0 to 2 represent weekly pre programme measurements (baseline), week number 3 to 10 represent programme delivery and week number 16 and 22 represent six- and 12-weeks post programme respectively.

Figure 8

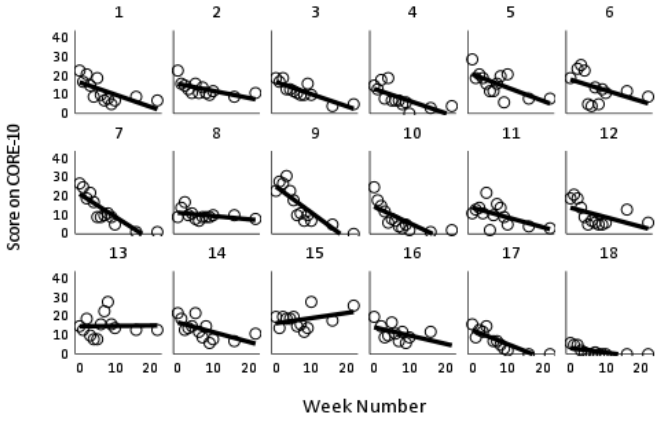
Individuals and Average Fitted OLS Trajectories of Changes in Psychological Distress Severity Over Time, Obtained from Participants' CORE-10 Ratings



Note. Red Line Represents Average Change Trajectory for the Entire Group.

Figure 9

Individual Growth Plots with Superimposed Fitted OLS Trajectory Obtained from Participants' CORE-10 Ratings Over Time



The average OLS trajectories for participants' CORE-10 scores as shown in Figure 8, indicated an estimated average initial status (intercept) and rate of change (slope)

estimate of 15.664 (*SD* = 4.61) and -.56 (*SD* = .32). Therefore, the average participant's psychological distress improved by -.56 units per week. The correlation between initial status and rate of change was not significant (*r* = -.14) and suggests that participants rates of change varied considerably and were not dependent on baseline severity.

Figure 9 showed a general downward trend across participants suggesting some improvement in CORE-10 severity. Overall, 12 participants achieved statistically significant reductions in psychological distress, and six participants (6, 8, 12, 13, 15, 16) had no statistically significant change over the course of the study. Four participants (6, 13, 15, 16) that had no significant change on the CORE-10 also showed no significant change in PHQ-9 ratings, and three participants (6, 13, 16) that had significant changes on the CORE-10 showed no significant change in PHQ-9 ratings.

Table 6

Participants' OLS Trajectories for CORE-10 with Associated Standard Error and R^2

	CORE-10				
	Initial Status		Rate of Change		
Participant ID	Estimate	Error	Estimate	Error	R^2
1	16.779	2.061	-0.667	0.222	0.444
2	15.930	1.301	-0.631	0.140	0.398
3	16.860	1.124	-0.850	0.121	0.723
4	13.225	1.941	-0.681	0.209	0.464
5	21.010	2.191	-0.673	0.236	0.453
6	18.200	3.375	-0.466	0.349	0.217
7	21.366	1.891	-0.874	0.203	0.764
8	11.340	1.115	-0.406	0.120	0.165
9	25.356	2.376	-0.855	0.255	0.730
10	14.620	2.153	-0.754	0.231	0.569
11	14.068	2.149	-0.566	0.231	0.320
12	14.038	2.337	-0.523	0.251	0.273
13	14.924	2.573	0.023	0.277	0.001
14	17.006	1.913	-0.604	0.206	0.365
15	16.563	1.941	0.371	0.209	0.137
16	14.435	2.179	-0.456	0.286	0.208
17	12.960	1.356	-0.860	0.142	0.740
18	3.267	0.767	-0.662	0.082	0.438

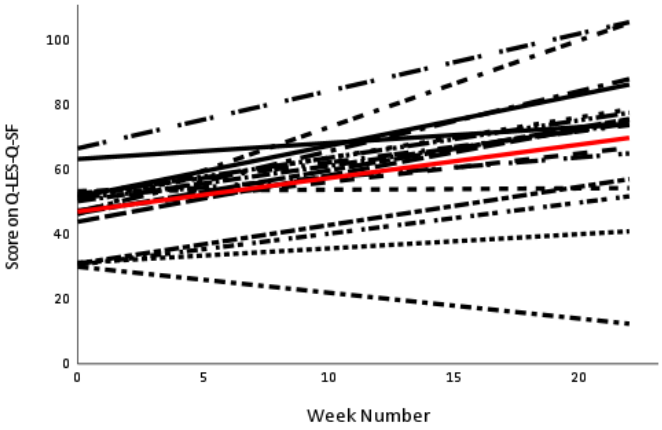
Exploring individual initial status and rate of change estimates including error and R^2 values from Table 6 suggests that the majority participants tended to reduce their psychological distress over time. The R^2 values varied widely across participants and suggests that OLS regression modelling may be a poor fit for some participants change trajectories.

OLS Analysis participants' Ratings on Q-LES-Q-SF.

Figure 10 shows the fitted OLS growth trajectories for individual participants based on Q-LES-Q-SF ratings and includes an average OLS trajectory (red line). Individual empirical growth plots superimposed with fitted OLS growth trajectories were used in Figure 11 to examine individual variation in Q-LES-Q-SF ratings over time. Week number 0 to 2 represent weekly pre programme measurements (baseline), week number 3 to 10 represent programme delivery and week numbers 16 and 22 represent six- and 12-weeks post programme respectively. Additionally, improvements in Q-LES-Q-SF ratings are positively orientated, opposite to the PHQ-9 and CORE-10.

Figure 10

Individuals and Average Fitted OLS Trajectories of Quality-of-life Enjoyment and Satisfaction Severity Over Time, Obtained from Participants' Q-LES-Q-SF Ratings



Note. Red line Represents Average Change Trajectory for the Entire Group.

Figure 11

Individual Growth Plots with Superimposed Fitted OLS Trajectories Obtained from Participants' Q-LES-Q-SF Ratings Over Time

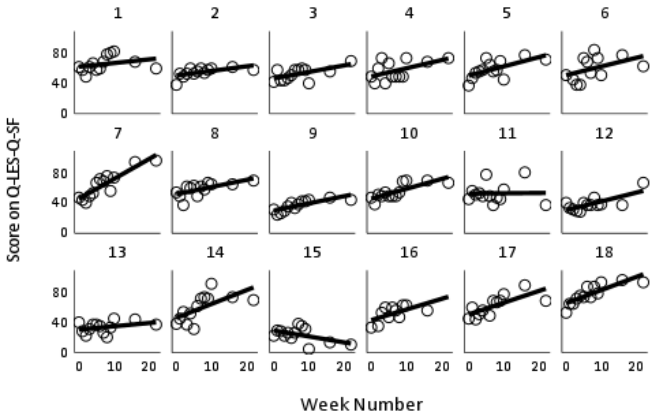


Figure 10 showed the average initial status estimate on the Q-LES-Q-SF was 47.08 (*SD* = 10.55) with rate of change estimate of .54 (*SD* = .34) units per week. A large standard deviation indicated that participants OLS trajectories were scattered widely around the mean. The result of the Pearson's correlation between initial status and rate of change was not statistically significant (*r* = .21) which suggested a weak, non-significant relationship between initial status estimates to predict different rates of change.

Sporadic and steady increases and decreases observed in Figure 11 suggested heterogeneity between individual growth plots. A range between -.505 and .905 units per week (see Table 7 below for individual intercepts and slopes) indicated wide variability in participants OLS rates of change. Overall, 12 participants achieved statistically significant improvement in quality-of-life enjoyment and satisfaction, and six participants (1, 4, 6, 11, 13, 15) had no significant change in Q-LES-Q-SF ratings over the duration of the study. Two participants (1, 4) that had significant changes on the PHQ-9 and CORE-10 showed no statistically significant change in Q-LES-Q-SF ratings. Overall, three participants (6, 13, 15) had no statistically significant change across all outcome measures (Q-LES-SSF, CORE-10, PHQ-9).

Table 7

Participants' OLS Trajectories for Q-LES-Q-SF with Associated Standard Error and R^2

	Q-LES-Q-SF				
	Initial Status		Rate of Change		
Participant ID	Estimate	Error	Estimate	Error	R2
1	63.388	4.360	0.303	0.469	0.092
2	51.485	2.281	0.606	0.245	0.368
3	47.459	3.152	0.617	0.339	0.381
4	50.315	5.009	0.523	0.538	0.274
5	51.290	4.264	0.635	0.458	0.403
6	52.064	7.100	0.449	0.734	0.202
7	46.289	3.547	0.905	0.381	0.819
8	52.614	3.119	0.656	0.335	0.431
9	30.646	2.020	0.801	0.217	0.642
10	46.586	2.913	0.787	0.313	0.620
11	53.466	6.071	0.020	0.653	0.000
12	31.043	3.031	0.740	0.326	0.547
13	31.301	3.313	0.350	0.356	0.123
14	47.123	6.389	0.633	0.687	0.401
15	30.044	3.843	-0.505	0.413	0.255
16	43.977	4.836	0.602	0.634	0.362
17	51.653	4.529	0.726	0.473	0.528
18	66.682	3.355	0.829	0.361	0.688

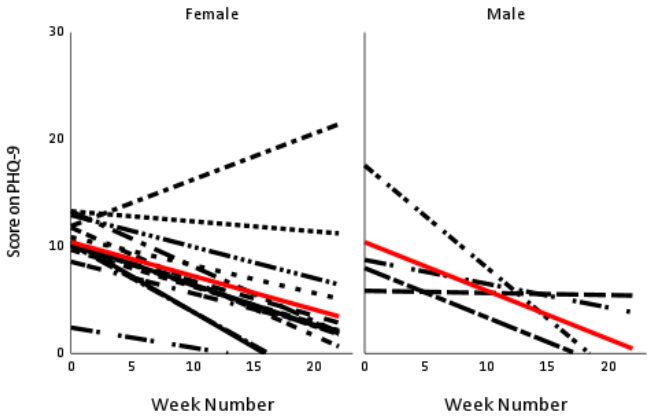
Table 7 showed the individual initial status and rate of change estimates including error and R^2 values. The variance explained by OLS modelling varied from less than one percent to 82 percent and indicated that the R^2 values varied widely across participants. Table 7 also showed that over the intervention period participants tended to improve in quality-of-life enjoyment and satisfaction.

OLS Analysis Between Male and Female Participants' Ratings on PHQ-9, CORE-10, Q-LES-Q-SF.

OLS growth trajectories based on participants' outcome measure ratings were explored to identify similarities and or differences across gender (i.e., male or female). Week number 0 to 2 represent weekly pre programme measurements (baseline), week number 3 to 10 represent programme delivery and week number 16 and 22 represent six- and 12-weeks post programme respectively.

Figure 12

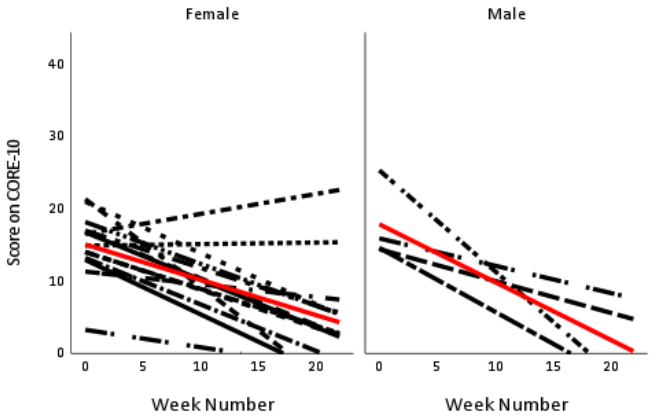
Fitted OLS Trajectories for the PHQ-9 Categorised by Gender



Note. Red Line Represents Average Change Trajectory for the Entire Group.

Figure 13

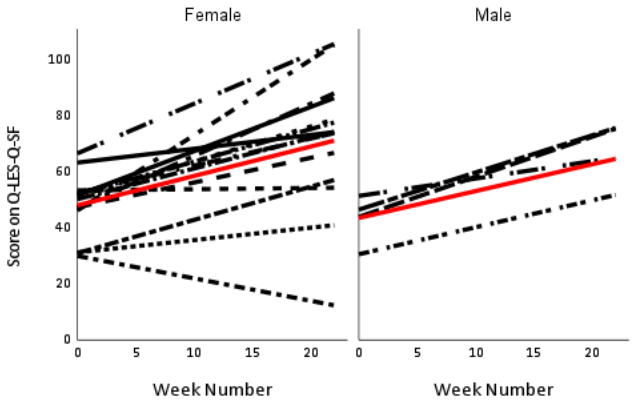
Fitted OLS Trajectories for the CORE-10 Categorised by Gender



Note. Red Line Represents Average Change Trajectory for the Entire Group.

Figure 14

Fitted OLS Trajectories for the Q-LES-Q-SF Categorised by Gender



Note. Red Line Represents Average Change Trajectory for the Entire Group.

Figure 12 showed the average OLS trajectories of individual participants ratings on the PHQ-9 categorised by gender (male and female). The average observed intake value (fitted intercept) on the PHQ-9 for male and female participants was 10.04 (*SD* = 5.17) and 10.42 (*SD* = 2.71) with an estimated rate of change of -.48 (*SD* = .34) and -.50 (*SD* = .42) units per week. In general, male, and female participants showed comparative average OLS trajectories on the PHQ-9. Based on the average initial status and rate of change, distribution of OLS trajectories appeared to be similar between male and female participants.

Gender differences for the CORE-10 OLS trajectories as shown in Figure 13 visually represent an average observed intake value (fitted intercept) of 17.59 (*SD* = 5.22) for male participants and 15.12 (*SD* = 4.47) for female participants. The male and female estimated average rate of change was -.67 (*SD* = .17) and -.53 (*SD* = .35) units per week respectively. Based on the average initial status and rate of change, distribution of OLS trajectories appeared to be similar.

Male and female OLS trajectories based on Q-LES-Q-SF were presented in Figure 14. The analysis estimated an average observed intake values for male and female of 43.17 (*SD* = 8.91) and 48.20 (*SD* = 11.01) with an estimated rate of change of .70 (*SD* = .11) units per week for male participants and .49 (*SD* = .37) for female participants. Visual inspection of the average initial status and rate of change showed similar trajectories between gender.

Section Three: Exploring the Interaction and Correlation Between Primary Outcome Measures

This section explores the relationship and interaction between outcome measures to assess the feasibility of psychological distress (CORE-10), quality of life enjoyment, and satisfaction (Q-LES-Q-SF) as potential predictor variables to use for LMLM. This was done by analysing bivariate correlations using OLS intercepts, rate of change estimates and standardised (Z-scores) participant's ratings on the PHQ-9, CORE-10, and Q-LES-Q-SF (i.e., interaction).

Table 8

Bivariate Correlation Between Intercepts and Slopes of PHQ-9, CORE-10, and Q-LES-Q-SF

		PHQ-9		CORE-10		Q-LES-Q-SF	
		β_0	β_1	β_0	β_1	β_0	β_1
PHQ-9	β_0	—					
	β_1	-.056	—				
CORE-10	β_0	.814**	-.0.43	—			
	β_1	.078	.875**	-.138	—		
Q-LES-Q-SF	β_0	-.586*	-.365	-.459	-.456	—	
	β_1	-.153	-.780**	-.012	-.770**	.213	—

Note. ** Correlation is Significant at the 0.01 Level (2-tailed); * Correlation Significant at .05 Level (2-tailed) β_0 Represents Initial Status β_1 Represents Rate of Change.

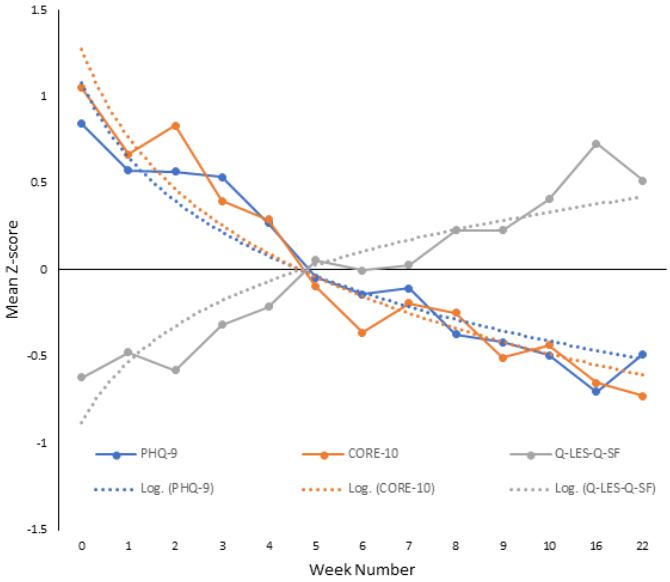
Table 8 showed a significant and strong positive relationship between the intercepts of PHQ-9 and CORE-10 of .814 and indicates that those participants who scored high on low mood also scored high on psychological distress severity. The significant and strong positive correlation of .875 in low mood and psychological distress rate of change indicates that in general, participants who decreased in low mood severity also decreased in psychological distress. The Q-LES-Q-SF had a moderate negative correlation in initial status (*r* = -.586) and a strong negative correlation in rate of change with the PHQ-9 and CORE-10; -.780 and -.770 respectively. This indicates that those participants that I improved in low mood and psychological distress tended to improve in quality-of-life enjoyment and satisfaction.

The relationship and interaction between outcome measures (PHQ-9, CORE-10, and Q-LES-Q-SF) was graphically shown in Figure 15 below and was obtained by converting participants data across the 13 time points into Z-scores ($z = \frac{x-\mu}{\sigma}$) with a logarithmic trendline superimposed for each outcome measure. This allows for

standardisation of the different psychometric questionnaires and to observe increases and decreases in the rates of change of change over time (e.g., nature of change).

Figure 15

PHQ-9, CORE-10, and Q-LES-Q-SF Z-Scores with Logarithmic Fit Line Superimposed to Show Interaction and Mean Change Across the Intervention Period

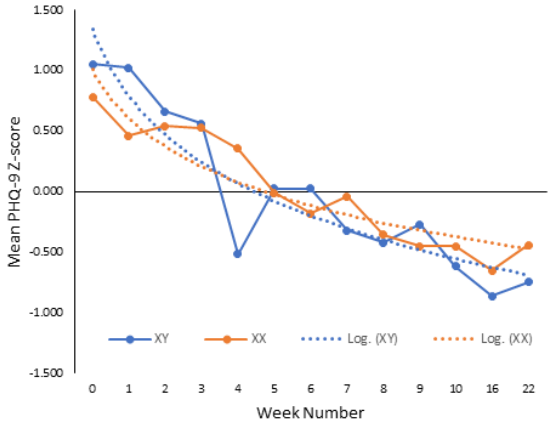


Note. Blue Line Represents PHQ-9, Orange Line Represents CORE-10, Grey Line Represents Q-LES-Q-SF.

Figure 15 logarithmic trendlines showed that the PHQ-9 and CORE-10 had an initial rapid decrease and tended to be less rapid over time. A similar but inverse relationship was observed between the Q-LES-Q-SF and PHQ-9 and CORE-10, in which the Q-LES-Q-SF increased as low mood and psychological distress ratings decreased. Logarithmic trendlines for Q-LES-Q-SF show an initial rapid improvement in quality-of-life enjoyment and satisfaction in which improvements were less rapid over time. The outcome measures appeared to intersect around week three of the programme (i.e., week number 5) or three weeks into the intervention phase suggestive of sudden gains.

Figure 16

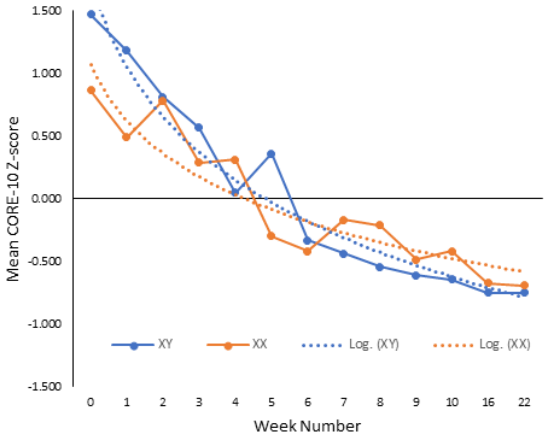
Mean PHQ-9 Z-Scores with Logarithmic Fit Line Superimposed to Show Interaction and Change Over Time between Male and Female Participants



Note. Blue Line Represents Female CORE-10 Z-Scores, Orange Line Represents Male CORE-10 Z-Scores.

Figure 17

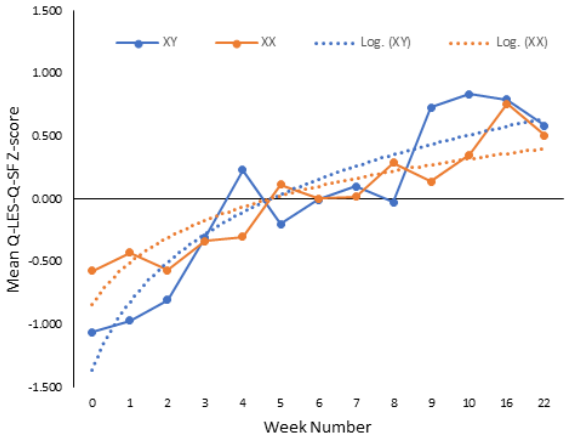
Mean CORE-10 Z-Scores with Logarithmic Fit Line Superimposed to Show Interaction and Change Over Time Between Male and Female Participants



Note. Blue Line Represents Female CORE-10 Z-Scores, Orange Line Represents Male CORE-10 Z-Scores.

Figure 18

Mean Q-LES-Q-SF Z-Scores with Logarithmic Fit Line Superimposed to Show Interaction and Change Over Time Between Male and Female Participants



Note. Blue Line Represents Female CORE-10 Z-Scores, Orange Line Represents Male CORE-10 Z-Scores.

Figure 16, 17, and 18 showed the interaction between participants rating based on gender. All outcome measures show similar trajectory; an initial rapid rate of change slowing over time for both male and female. The graphs also showed that males who initially averaged higher on outcome measures (worse severity) at baseline, tended to improve more rapidly overtime than females. However, during the intervention of the programme Z-scores tended to converge and cross over frequently with time.

Section Four: Multilevel Modelling for Change Analysis

This section used a LMLM for change analysis to explore the efficacy of the LLTTF programme in reducing low mood, the interaction between psychological distress and quality of life enjoyment, and satisfaction amongst individual Māori participants in the community.

Model Descriptors

Model A represents the unconditional means model. *Model B* represents the unconditional growth model and estimates changes in PHQ-9 scores over time. *Model* C^1 adds a predictor to *Model B* and represents the effect of Q-LES-Q-SF and the interaction of Q-LES-Q-SF by time on PHQ-9 rates of change. *Model* C^2 adds a predictor to *Model B* and represents the effect of CORE-10 and the interaction of CORE-10 by time. Where applicable, initial status and rate of change intercepts varied by participant. The results for *Model A, Model B, Model* C^1*, and Model* C^2 are presented in Table 9 below model analyses.

Model A: Low Mood Unconditional Means Results

Model A Fixed Effect

The fixed effect intercept (γ00) estimated a grand mean of 7.904 and was statistically significant with a $p < .000$. This indicates that participants average low mood was non-zero suggesting that participants PHQ-9 levels varied significantly from the mean.

Model A Variance Components

The within-person estimate in residual variance ($\sigma^2\varepsilon$) was 17.180 and the between-person estimate in residual variance (σ^2O) was 7.986 and statistically significant with a $p < .001$ and $p < .05$ respectively. This indicated the need to explore further predictors such as time to potentially explain the within-person and between-person variance.

Model B: Low Mood Unconditional Growth Model

Model B Fixed Effects

The fixed effect for the true initial status intercept (γ00) was 10.370 with a true rate of change intercept (γ10) of -.344 and statistically significant with a $p < .001$ respectively. The results indicate that time had a significant effect on low mood in which participants average change in low mood severity (PHQ-9) decreased by .344 units per week.

Model B Variance Components

The within-person residual variance ($\sigma^2\varepsilon$) estimate for *Model B* was 10.501 and statistically significant with a $p < .001$. Therefore, potentially significant within-person variance remains unexplained by the model. A difference in residual variance ($\sigma^2\varepsilon$) of 6.679 units between *Model A* and *Model B* indicates that the addition of time explained a greater degree of within-person variance. Furthermore, the Pseudo R2 statistic ($R^2\ \varepsilon$) estimated that *Model B* explained 38.89 percent more of the within-person variance compared to *Model A*.

The between-person variance in intercept (σ^2O) for *Model B* was statistically significant ($p < .05$) at 7.543 and indicates that between-person variance remains unexplained by the model. Furthermore, *Model B* explained .443 units more variance than *Model A.* The between-person variance in time (σ^21) for *Model B* was -.127 and not statistically significant ($p = .564$). This suggests that the adding time into the model

sufficiently explained the variability in true rates of change (individual pooled scatter around the intercept γ10).

The population covariance ($\sigma^2$01) was .055 and statistically significant ($p < .05$). This suggests that participants who had higher initial PHQ-9 scores at baseline may experience slightly faster rates of recovery over time.

Model B Goodness of Fit

A comparison between *Model A* and *Mode B* Deviance statistics showed a χ^2change value of 84.529 between *Model A* and *Model B* and was statistically significant ($p < .01$). BIC values further support *Model B* compared to *Model A*, with a decrease in values from 1357.951 to 1289.737 a difference of 189.737. Overall, *Model B* and the inclusion of time as a predictor variable significantly improved the model fit compared to *Model A.*

Model C^1 Results: Effect of Quality-Of-Life Enjoyment and Satisfaction on Low Mood

Model C^1 Fixed Effects

The fixed effect for the average true initial status intercept (γ^{00}) was 8.958 and true rate of change intercept (γ^{10}) was -.174 and statistically significant with a $p < .001$ and $p < .01$ respectively. The results indicate that the effect of time on low mood remained significant in addition to the effect of Q-LES-Q-SF. Therefore, *Model C^1* estimates that participants average change in low mood severity (PHQ-9), decreased by .174 units per week.

The fixed effect for Q-LES-Q-SF (γ^{01}) was statistically significant ($p < .001$) whereby an increase in quality-of-life enjoyment and satisfaction of one unit, resulted in an average participants decrease in low mood of .221 units. The interaction between Q-LES-Q-SF by time (γ^{11}) was .006 and statistically significant ($p < .05$). This suggests that the interaction of Q-LES-QF by time predicts different trajectories, in which the average individual who increased by one unit in Q-LES-Q-SF, experienced an increase in low mood rate of change of 0.006 units higher compared to participants who did not increase in Q-LES-Q-SF.

Model C^1 Variance Components

The within-person residual variance ($\sigma^2\varepsilon$) estimate for *Model C^1* was 7.313 and statistically significant with a $p < .001$. This indicates that within-person variance remains

unexplained in the model. The residual variance ($\sigma^2\varepsilon$) between *Model B* and *Model C¹* decreased by 3.188 units and indicates that the addition of the variable Q-LES-Q-SF explained a greater proportion of within-person variance than *Model B* (i.e., time). Furthermore, the Pseudo R^2 statistic (R^2 ε) estimates that *Model C¹* explained 30.36 percent more of the variance compared to *Model B.*

The between-person variance intercept (σ^2O) was 4.866 and statistically significant with a $p < .05$. This indicated that potentially significant between-person variance remains unexplained by the model. The between-person variance in time (σ^21) was - .275 and not statistically significant ($p = .150$). This indicates the between-person variance in average rate of change was not significant after accounting for the effect of Q-LES-Q-SF.

The population covariance statistic (σ^201) was .051 and not statistically significant ($p = .467$). Therefore, after accounting for Q-LES-Q-SF, *Model C¹* found no significant relationship between initial status and rate of change to determine for example, whether participants with lower (i.e., worse severity) initial Q-LES-Q-SF scores at intake, predicted slower or faster rates of improvement in low mood over time.

Model C¹ Goodness of Fit

A comparison between *Model B* and *Model C¹* Deviance statistics showed a χ^2change value of 86.585 between *Model B* and *Model C¹* and was statistically significant (2 d.f., $p < .001$). BIC values further support *Model C¹* compared to *Model B*, with a decrease in values from 1289.737 to 1214.028. This provides evidence that accounting for the effect of Q-LES-Q-SF over time was a better model fit than *Model B*. This suggests that including the variable Q-LES-Q-SF better predicts within and between participants variances or differences in low mood trajectories than time alone. Whereby hypothesised estimates indicated that an increase in Q-LES-Q-SF accounted for a faster rate of reduction in low mood for the average individual.

Model C¹ showed a significant improvement in explaining the within and between participants variance compared to *Model B,* the fixed effects specifically γ^{00} and γ^{10} show a decrease in standard errors indicative of increased precision.

Model C^2 Results: Effect of Psychological Distress on Low Mood

Model C^2 Fixed Effects

The fixed effect for the average initial status intercept (γ^{00}) was 8.222 and statistically significant with a $p < .001$. The rate of change intercept (γ^{10}) was -.020 and not statistically significant ($p = .618$). The results indicate that after controlling for the effect of psychological distress (CORE-10), the rate of change was not significantly different between hypothesised estimates (i.e., CORE-10 and time). This suggests that the effect of CORE-10 (grand mean centred) did not better predict the rate of change in low mood than time alone.

The fixed effect intercept for CORE-10 (γ^{02}) was .497 and statistically significant ($p < .001$) and suggests an increase in psychological distress (CORE-10) by one unit, led to an increase in the average participants low mood (PHQ-9) of .497 units. The interaction of CORE-10 over time (γ^{12}) was .009 and not statistically significant ($p = .054$). This suggests that the model fixed effects for individuals CORE-10 level predicted the rate of change in low mood but did not predict faster or slower rates in low mood trajectories over time based on the interaction of CORE-10 by time.

The Pseudo R^2, variance components and goodness-of-fit Model C^2 are not described here due to the non-significant fixed effect of time (γ^{10}), interaction of CORE-10 by time (γ12) and covariance ($\sigma^2 01$) (see Table 9 below). The results suggest that *Model C^2* predicts the level of PHQ-9 (γ^{02}) can be determined by the level of in CORE-10 across time intervals but did not predict a significant difference in change trajectories greater than time alone and likely indicates that the CORE-10 has poor predictive value.

Table 9

Multilevel Modelling Results for Low Mood (PHQ-9)

	Parameter	Model A	Model B	Model C[1]	Model C[2]
Model Dependant Variable		Low Mood	Low Mood	Low Mood	Low Mood
Model Predictor Variable/s		None	Time	Q-LES-Q-SF Time Q-LES-Q-SF x Time	CORE-10 Time CORE-10 x Time
Fixed Effects					
Intercept (IS)	γ00	7.904*** (.720)	10.370*** (.730)	8.958*** (.607)	8.222*** (.443)
Q-LES-Q-SF	γ01			-.221*** (.025)	
CORE-10	γ02				.497*** (.041)
Time (ROC)	γ10		-.344*** (.067)	-.174** (.065)	-.020 (.039)
Q-LES-Q-SF x Time	γ11			.006* (.002)	
CORE-10 x Time	γ12				0.009 (.004)
Variance Components					
Residual (WP)	$\sigma^2\varepsilon$	17.180*** (1.669)	10.501*** (1.066)	7.313*** (.748)	5.964*** (.618)
Intercept (BP)	σ^2O	7.986** (3.110)	7.543* (3.212)	4.866* (2.158)	2.077 (1.105)
Time (BP)	σ^21		-.127 (.220)	-.275 (.191)	-.067 (.074)
Covariance	σ^201		.055* (.027)	.051 (.625)	.006 (.007)
Pseudo R^2 and Goodness-of-Fit					
Pseudo r2 for residual variance	$R^2\varepsilon$		.3889	.3036	.4321
-2 Log Likelihood	Deviance	1341.637	1257.108	1170.523	1094.215
Chi-squared difference in Deviance	χ^2Change		84.529**	86.585**	162.893**
Schwarz's Bayesian Criterion	BIC	1357.951	1289.737	1214.028	1137.720

Note. * p < .05, ** p <.01, *** p < .001. Standard errors are in parentheses. IS = Initial Status, ROC = Rate of Change, WP = Within-Person, BP = Between-Person

Overall, the results of the LMLM analysis suggests that time accounted for a significant amount of the within and between person variance in which the average individual experienced a reduction in low mood across the intervention period. The moderating effect of Q-LES-Q-SF suggests that an increase in quality-of-life enjoyment and satisfaction predicted different rates and change trajectories based on an increase of Q-LES-SF over time leading to a small but significant increase in the rate of change in low mood compared to time alone. Examining the CORE-10 (γ^{02}) and Q-LES-Q-SF (γ^{01}) intercepts and additional analysis (see Appendix M) indicated the predictor variable CORE-10 is likely a poor predictor of changes in low mood. Overall, the average participant improved in low mood, psychological distress and quality of life enjoyment and satisfaction over intervention period.

Section Five: Client Satisfaction and Acceptability of the LLTTF Programme

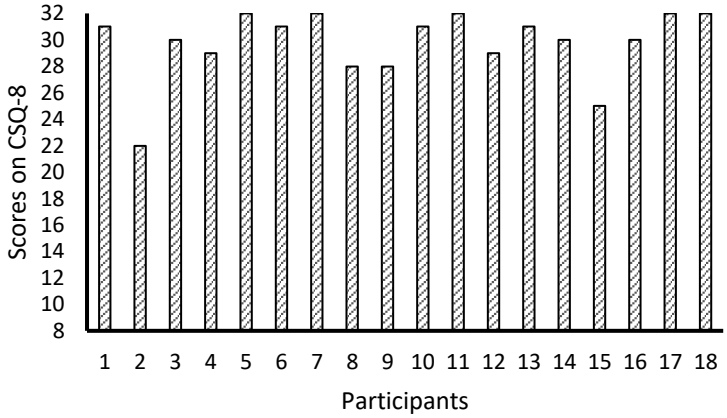
To explore client satisfaction and acceptability of the LLTTF programme, participants feedback was sought through semi structured interviews and the CSQ-8. Feedback was analysed using thematic analysis which summarised qualitative data into general themes related to participant experience and programme format. Aligning with cultural research praxis (e.g., Māori autonomy and control over resources), quotes from the semi structured interview were included to provide greater understanding and perspective from the voices of the participants.

Client Satisfaction Questionnaire-8

18 participants completed the CSQ-8 at termination. Two participants who started the programme dropped out after the first week and did not complete a CSQ-8. Therefore, no conclusion regarding satisfaction of the programme can be made for the two participants who dropped out.

Figure 19

Results of Participants Satisfaction (CSQ-8) of LLTTF Programme and Programme Delivery



The average score on the CSQ-8 was 30 out of 32 with scores ranging between 22 and 32 points. Further exploration of CSQ-8 questions found that overall, 15 (83.33%) participants were very satisfied and three (16.67%) were mostly satisfied with the type of service received. Satisfaction with the quality of service was rated as excellent (89%) or good (11%).

Seven participants (38.89%) indicated that the programme met almost all their needs, ten participants (55.56%) indicated most of their needs were met and one participant (5.56%) indicated the programme met a few of their needs. Overall, 11 participants (61.11%) indicated that the programme helped a great deal and for seven participants (38.89%) somewhat helped to effectively manage their problems. Regarding seeking help from the service again, most participants (*n* = 12 or 66.67%) indicated yes, definitely; five participants (27.78%) said 'yes, I think so'; and one participant (5.56%), said 'no, I don't think so'. A lack of face-to-face contact was the main reason given from the participant who said no to seeking help from the service again. Finally, all participants indicated ('yes, definitely' or 'yes, I think so') they would recommend a friend in need of similar help.

Qualitative Feedback

Semi structured interviews were undertaken at termination of the programme. A total of 13 out of 18 participants engaged in the interview process. Interview data was coded using inductive thematic analysis the following themes are presented below: Personal experiences and engagement; programme facilitator; programme workbooks and content; programme delivery and format. Following a description of the themes, quotes were included provide a personal narrative of the participant's feedback on undertaking the LLTTF programme.

Theme One: Personal Experiences and Engagement.

Most interviewees found the overall programme helpful and identified a wide range of improvements in their wellbeing since doing the programme. Notable improvement ranges from an increased awareness of behaviours and thoughts that contribute to low mood, to improved social and familial relationships (*n* = 12).

> *"I'm more mindful when it comes to talk that happens in my own head and being so critical of myself. Others have noticed that I am more patient or understanding of situations…I feel more assertive when I need to be."* (Participant 11)

> *"What I have noticed in myself is I am more pleasant towards myself and others, but it was myself that needed the most attention and to be more present both with myself and others, my family, friends, partner, and son. I have been out and doing more enjoyable things socialising and exercising in the last few months then I have been in this whole year."* (Participant 18)

> *"My anxiety and depression are gone. My wellbeing has improved…I've become a little bit more understanding in how I am and feelings rather than hiding behind it all."* (Participant 16)

> *"I'm noticing that when something happens, I don't just react so I kind of stop and see why I'm wrecked."* (Participant 5)

Social and relationship issues had a significant impact on several participants in which participants were often doing too much for other people and there was a high tendency for experiencing intimate relationship and familial issues. This meant that for some the programme was about reprioritising, refocussing, and slowing down (*n* = 6).

> *"Yeah, and just getting back to the basics with my relationship and my own self."* (Participant 16)

> *"…I think it just taught me to chill out, take a step back and relax, it's not as big of a deal." (*Participant 4)

> *"it's making you stop and actually look at it…the whole thing of having me slow down."* (Participant 17)

> *"…I no longer find myself getting upset and angry over little things which led to me not wanting to do anything."* (Participant 18)

The utility of using the LLTTF programme for people on waiting lists was one of the studies research questions. Although a comprehensive assessment cannot be made here due to the uptake of only two participants, both participants recommended that the programme should be made available to waitlisted patients (*n* = 2).

> *"To know that you have a 12 month wait it's disheartening to know that the help is not there. But that's just the system it's not enough. If you have got something like this for all the different pathways and needs, I would be a high advocate for something like this."* (Participant 15)

> *"…I thought it certainly helped me rather than having to wait for that period of time and being left in limbo of the unknown and still frightened by your emotions and thoughts. That's why when I received a letter from you because I felt I need it anyway. Yeah, I would certainly recommend it for someone in my position."* (Participant 16)

Several participants identified personal motivation and work life balance were significant barriers, to utilising the programme better; whānau, marae and iwi responsibilities also impacted participants level of time, effort, and consistency. For example, five of the participants who affiliated to Takapūwāhia marae experienced and were involved in four tangihanga over the course of the programme which impacted appeared physical and emotional wellbeing as well as progress throughout the programme (*n* = 5).

> *"…. maybe it wouldn't have been so bad if I wasn't so busy…"* (Participant 2)

> *"…we have gone through four deaths since August. You know how intense when it comes to tangihanga that it is for us and the mere fact that they are all whānau, very close whānau."* (Participant 17)

The level of engagement and effort varied considerably between participants but tended to be around two to three hour per week. The level of effort participants exerted ranged from on the high end for participant 18 who indicated "100/100" regarding effort, whilst others felt that given more time would have been more beneficial (*n* = 9).

> "I was able to set aside a night during the week roughly around two hours sometimes more mid-week to make up my plan for each booklet as well as being mindful throughout the week in relation to my plans." (Participant 11)

> *"I just felt that there was probably a little bit of extra time needed. There is so much to intake and put in practice to a certain extent. It's not just a 5-minute operation you are taking a good half hour to an hour out of your day. When you are working is not that easy to have time up your sleeve."* (Participant 16)

Theme Two: Programme Facilitator.

The programme facilitator was generally accepted by participants as being helpful, particularly in three main areas: accountability, reminders, and motivation. These three areas appeared to interact and create a flow on effect that helped to improve engagement with the programme. The feedback suggest that the therapeutic alliance was important considering that this interaction was via phone calls each week to follow-up and text messages to remind participants (*n* = 11).

> *"Yeah, like I probably just wouldn't have really done it at all in the end. I think but yeah knowing like oh, yeah, there's someone who's going to be checking up on me."* (Participant 3)

> *"I think if I didn't have someone checking in on me, I wouldn't have given it as good a go…keeping me accountable."* (Participant 1)

> *"You were really encouraging you know, and I felt really comfortable with you and the whole programme was helpful."* (Participant 5)

> *"It helped to also get reminder texts mid-week on doing the booklet and keeping on task because I'm lazy when it comes to helping myself, I'm more the type of person who prefers to help others."* (Participant 11)

> *"Phone call all, the text messages. It got me into that place that actually I need to be doing my homework. Because you text messaged you knew somewhere along the line you were going to get a phone call."* (Participant 17)

The importance of a cultural or Māori facilitator appeared to help create a more comfortable interaction in part due to the understanding of local tikanga. However, the principles of manaaki and whanaungatanga (e.g., privacy, confidentiality) may enhance this interaction. Some participants acknowledged that a choice to work with whānau should always be an option.

> *"I was comfortable with the programme because Gus was great, easy to talk to and was understanding if things did not go well over the week, I think if I had someone who was not Māori asking me these questions I would have not been as comfortable.* (Participants 13)

> *"I think there should be an opportunity for whānau to work with whānau. Whānau will make the decision on who they want to work with, honestly, but I think there should always be the opportunity if whānau want to work with whānau."* (Participant 17)

Theme Three: Programme Workbooks and Content.

Overall, participants found the principles of programme workbooks to be helpful with simple content that was easy to understand, particularly the planning pages, and practical ideas (*n* = 13).

> *"I thought that all the little booklets had really useful content. It had practical ways of life dealing with emotional mood challenges in like an immediate fashion."* (Participant 2)

> *"The books themselves were quite good like simple enough. I think even too simple at times, some of the language.* (Participant 3)

> *"Planning activities those were really good."* (Participant 5)

> *"I really liked the first book which was the vicious cycle especially because It helped me understand how my brain works, my body reacts to my behaviour."* (Participant 7)

Participants acknowledge a lack of relevance of some examples and content in the workbooks. Some participants felt that the examples were not culturally or situationally relevant whilst others felt the content at times was phrased in a patronising, lacked relevance, and was oversimplified (*n* = 7).

> *"I thought a lot of the examples that they use just weren't relevant." (Participant 1)*

> *"Maybe the phrasing certain things differently, and the cheesiness might be off-putting to some I think."* (Participant 3)

> *"I thought some of the books weren't that relevant to my situation at the time."* (Participant 12)

> *"I liked the simplicity of the books, but I felt that the wording was patronizing in places."* (Participant 15)

Other notable issues regarding the usability of the workbooks highlight difficulties in the paper used in the book and space to write weekly plans. Although PDF copies of the worksheets were available online, some of the participants did not have accessibility to a printer (*n* = 3).

> *"Yeah, and I hate the paper that it was printed on…yeah because its glossy it's got that film on it that's why it was hard to write on."* (Participant 5)

Theme Four: Programme Delivery and Format.

Discussion of the programme format during the interview generated varying views and opinions regarding the current delivery. While generally accepted as a workable programme, there were varying discrepancy culturally regarding the structure, format, and content. Many of the participants felt that cultural adaptations and consideration were needed to increase usability and acceptability of the programme for Māori users (*n* = 13).

> *"Yeah, I still think overall, good programme…could be very useful…especially with Māori who don't really like to always have to talk about things with people or its*

hard, you know being able to do things in their own time, but still feel kind of structured." (Participant 3)

"Change the graphics, some of the scenarios, make them more specific to stuff that might happen in New Zealand…Framework good but change the decoration." (Participant 5)

Participants suggested several recommendations to improve cultural validity of the LLTTF programme. Whilst some participants suggested a Māori version should be made available, most participant agreed a bicultural approach that was primarily written in English but included Māori words, whakataukī, Māori illustration and culturally specific examples would make the programme more relevant and relatable. Several participants recommended the inclusion of Māori principles such as whanaungatanga, wairuatanga, and concepts such as whare tapa whā. The importance of face to face or at least flexibility between phone and in person follow up sessions was suggested, including an opportunity for more meaningful discussion of problems. Therefore, it was suggested that greater flexibility in the format would be advantageous where users could choose workbook order, follow up mode (e.g., face to face, phone) and timeframes (e.g., weekly, or fortnightly) (*n* = 7).

"Instead of having cheesy thoughts. Like maybe whakataukī or something like that, more te reo, more examples that would be relevant in our culture…It needs to have something that shows that this is for our people." (Participants 1)

"Be more focussed on Kaupapa Māori, focus on wairua and whānau." (Participants 14)

"…maybe less frequent catch ups but like when it is a catch-up it's a good chunk of time, we can devote quality korero to." (Participant 2)

"I've thought about it that maybe it should be fortnightly not weekly, yeah just to give you more time to put into practice what was learned, it just felt a bit rushed." (Participant 5)

The findings from the thematic analysis found that participants, in general, were satisfied with the LLTTF programme at an individual level. From a cultural perspective, the LLTTF programme appears to be acceptable in principle (I.e., CBT framework).

However, the programme lacked culturally relevant content (e.g., whakatauki) and consideration of the delivery format (e.g., face-to-face, biweekly follow-up). Whilst an exhaustive evaluation of the cultural acceptability of the programme was not undertaken, the feedback from Māori consumers provides recommendations of changes that may potentially increase the effectiveness of the LLTTF programme for people of Māori descent.

CHAPTER 8: DISCUSSION

Chapter Overview

Living Life to the Full is an eight week LI-CBT programme designed to reduce low mood for adults. The aim of the current study was to individually deliver the programme with telephone support to Māori adults living in the community experiencing mild to moderate low mood. The programme was also tried to ultilise a waitlist within a kaupapa mental health service. The data was analysed using summary and inferential statistics, such as OLS regression and multilevel modelling to determine statistically significant improvements in low mood, psychological distress and quality of life enjoyment and satisfaction over a six month period (i.e, 23 weeks). A summary of the currrent findings is presented in this chapter with in the context of study hypotheses and existing literature. Discussion of research and clinical contributions are also given including implicaiton to clinical practice and for future research. Authors insights will also be given as needed to provide greater understanding into the nuances of delivering a LI-CBT intervention with Māori participants.

Summary of Study Hypotheses and Findings

Hypothesis One

It is hypothesised, that participants who complete the guided LLTTF programme will result in a significant reduction in low mood symptoms based on participants PHQ-9 scores.

To monitor weekly change in low mood the PHQ-9 was used over the 23-week intervention period made up of three measurements at baseline, eight weekly measurements during the intervention and measurements at 6- and 12-weeks post programme. The findings from the current study provide evidence to support hypothesis one. OLS analysis indicated an overall weekly decrease of .50 (SD = .40), in which 61.11 percent of participants experienced statistically significant reductions, six experienced no significant change and one significantly deteriorated. LMLM found that time accounted for the greatest proportion of the variance. Successive modelling led to an increase in explained variation, in which small standard errors indicate a closer to true value compared to preliminary analyses. Therefore LMLM provides greater statistical analysis to infer that on average Māori participants improved in low mood. Participant

15's deterioration of low mood symptoms was likely due to interpersonal issues that were not with in their control, exacerbating symptoms. Various interpersonal, marital, and familial conflicts were experienced by several participants throughout the programme potentially impacting on the effectiveness of the programme and highlights the complexities of delivering interventions in a real-world setting.

Individually delivered LLTTF studies are limited in the literature with a preference for group delivered LLTTF interventions. The international and local literature suggest that individual adult delivered guided LLTTF is effective at reducing low mood (Freire et al., 2015; Lee, 2014). A local study by Lee (2014) showed comparable outcomes to the current study and provides evidence for cross cultural efficacy (Southeast Asian) of the LLTTF programme within New Zealand. Although the participants of the current study represented a more diverse age range, the greatest proportion of participants, or 44 percent in the current study were in the same age range as Lee's (2014) study, 20–29 years of age. Looking more broadly to telephone delivered LI-CBT studies such as Montagu (2015) and Lawn and others (2019) potentially explains the lower dropout rates and provides and can be an effective medium (see hypothesis four).

The current study also compared similarly to international and local studies with comparative treatment outcomes in guided individual and group delivered formats (e.g., Forman, 2015; Freire et al., 2015; Lee, 2014; Martyn, 2017; Montagu, 2015; Scheibmair, 2010; C. J. Williams et al., 2018). This supports Cuijpers and associates (2019) meta-analysis regarding the non-significant difference in efficacy between individual, group, and telephone formats. The evidence of the current study and literature support the reliability of the LLTTF programme across formats and cross culturally adding to the evidence base for guided LI-CBT within New Zealand to reduce low mood in adults and older persons across New Zealand European, Southeast Asian and Māori cultural groups within New Zealand (Forman, 2015; Lee, 2014; Martyn, 2017).

Hypothesis Two

It is hypothesised that participants who complete the guided LLTTF programme will result in significant reduction in psychological distress based on participants CORE-10 scores.

Psychological distress was included as an outcome measure to primarily monitor subthreshold symptoms and changes in functioning for low mood and anxiety. The findings indicate that the average participant CORE-10 symptoms improved over the intervention period at a faster rate of change -.56 (*SD* = .32) per week compared to participant ratings on the PHQ-9. These improvements continued to improve post programme up to 12 weeks. MLM found the moderating effect of CORE-10 did not significant predict varying rates of change in low mood compared to time alone. Supplementary analysis (Appendix M-1, M-2) indicates that the CORE-10 is likely a poor predictor of different rates of change in PHQ-9 trajectories.

A Māori adapted ultra-brief CBT study for psychological distress provides some evidence for the effect of CBT frameworks to reduce psychological distress (as measured by the Kessler Psychological Distress Scale-10) in Māori participants, however treatment gains appeared to be less durable in which mean improvements were no longer significant at three months post programme (Mathieson et al., 2012). The current study suggests that LLTTF for low mood was more effective for treating psychological distress in Māori compared to Mathieson and others (2012). This may be due to less sessions and contact time (i.e., three sessions total of 60 minutes) which was a criticism of the previous study (Mathieson et al., 2012) as opposed to more frequent but brief sessions (e.g., 5 to 8 session; 15 to 30 minutes), improving retention and allowing for a greater exposure to potential treatment effects (Bee et al., 2008; Bilich et al., 2008; McCusker et al., 2016; Mohr et al., 2008). Additionally, differences in demographics should be highlighted as the majority of participants from Mathieson and others (2012) were in low socioeconomic groups and tended to be unemployed compared to the current study participants which were mostly employed or other (e.g., home maker, carer, student). Adverse socioeconomic deprivation likely leads to increased vulnerability to psychological distress and may limit the durability of treatment gains (Hobbs et al., 2021). The literature provides some evidence regarding socioeconomic status and negative effects on treatment gains (Finegan, Firth, Wojnarowski, & Delgadillo, 2018), however, further research using LLTTF considering the effect of socioeconomic status on treatment outcomes is needed to draw substantive conclusions for Māori.

An in-depth analysis of sudden gains was not undertaken for the current study. However, logarithmic trendlines indicate the presence of sudden gains and rapid change

for the average participant which occurred around week three and four similar to response pattern identified in other CBT studies (Hayes et al., 2007; Montagu, 2015; Saunders et al., 2019). Furthermore, studies investigating the nature of change (Floyd et al., 2004; Montagu, 2015) found treatment gains for bibliotherapy tended to improve post programme up to 12 weeks in which the average CORE-10 trajectory for the current study supported this trend.

The treatment outcomes provide evidence of the effectiveness of LLTTF programme for Māori experiencing low mood to reduce symptoms of psychological distress and compares similarly to existing local literature (Forman, 2015; Mathieson et al., 2012; Montagu, 2015). Therefore, the current study provides evidence for hypothesis two, in which the participants who completed the programme overall, experienced meaningful improvements in psychological distress.

Hypothesis Three

It is hypothesised that participants who complete the guided LLTTF programme will result in significant improvement in quality-of-life enjoyment and satisfaction based on participants ratings on the Q-LES-Q-SF scores.

The Q-LES-Q-SF is a recovery-oriented measure that rates the degree of enjoyment and satisfaction across activity domains (e.g., physical, feeling, work, relationships). The positive orientation of scoring suggests that as PHQ-9 and CORE-10 scores reduce, the quality-of-life enjoyment and satisfaction should increase. The results overall support hypothesis three, in which the majority of participants who completed the programme experienced significant improvements in quality-of-life enjoyment and satisfaction. The outcome from the OLS analysis found that 66.67 percent of participants experienced statistically significant improvement in quality-of-life enjoyment and satisfaction in which treatment gains were maintained up to 12-weeks post programme. This suggests that the majority of participants improved, however, on average some impairment to quality-of-life enjoyment and satisfaction remained (< 70.5% on Q-LES-Q-SF). LMLM supports OLS findings in which participants quality of life tended to improve over time and throughout the intervention period. LMLM analysis indicated that improvements in quality of life enjoyment and satisfaction led to meaningful improvements in low mood including a faster rate of change for those who improved in quality of life enjoyment and satisfaction.

International and local LI-CBT studies monitoring changes in quality-of-life enjoyment and satisfaction also achieved significant improvements (Martyn, 2017; Montagu, 2015; C. J. Williams et al., 2018). For example, Martyn's (2017) group based LLTTF study showed similar average rates of change and number of participants who significant improved, 75 percent compared 66.67 percent for the current study. Other local studies such as Forman (2015) found no significant improvement in an adult group delivered LLTTF programme, whilst Montagu (2015), found that 85 percent of participants at post programme were within the functional level. Variation in the Q-LES-QF findings were likely due to methodological differences (Montagu, 2015) and clinical cut-offs (Eisen et al., 2006; IsHak et al., 2013; Stevanovic, 2011).

A Māori adapted full strength CBT programme by Bennett (2009), provides evidence that targeting treatment at the psychological level (i.e., mental domain) led to significant improvements in other areas such as physical, spiritual, family. A similar finding was also evident for Lee (2014) using pre-post participant ratings on the World Health Organisation Quality of Life Questionnaire, in that the LLTTF programme led to significant improvements in physical, psychological, relational, and environmental wellbeing. Although, the Q-LES-Q-SF does not provide individual domain scores, questions target similar domains. Considering studies by Bennett (2009), Lee (2014) and the current study provide a promising basis for the interdimensional effect of the LLTTF programme for Māori. However, changes within the spiritual domain remain unknown for Māori who completed the programme.

Hypothesis Four

It is hypothesised that the acceptability of guided self-help LI-CBT programme will be applicable to Māori participants on an individual level as shown by high scores on the CSQ-8 and low dropout rates (< 30%; Sharf, 2008), but future cultural adaptations and considerations, identified through semi structured interviews, may be needed to enhance overall effectiveness.

The acceptability of the programme was explored on two levels: Individual and cultural. Individual acceptability of the programme was primarily determined by high scores on the client satisfaction questionnaire (CSQ-8) and low dropout rates. To provide greater insight and to acknowledge cultural responsibilities under the principles of Te Tiriti o Waitangi, a semi structured interview was used to gain additional insights into

individual and cultural acceptability of the LLTTF programme and provide a platform for Māori participant voices to be heard (Bishop, 1999; Cram, 2009; G. H. Smith, 2000). The outcome of the CSQ-8 results for the current study found an average score of 30 out of 32 (range 22–32) and a drop-out rate of 10 percent. These results indicated that the LLTTF programme was highly acceptable on an individual level and reiterates previous findings in the literature (Forman, 2015; Lee, 2014; Martyn, 2017; Montagu, 2015; C. J. Williams et al., 2018). Unfortunately, the author was unable to ascertain reason for the two individuals who dropped out in the first week of the intervention. However, the author was aware of significant relationship issues for at least one of the participants.

It is important to acknowledge that the dropout rate was low compared to the average rate of 30 percent and to other studies (Forman, 2015; Montagu, 2015; C. J. Williams et al., 2018), although similar dropout rates were observed for studies such as Lee (2014), Martyn (2017) and to a Māori adapted high intensity CBT programme (S. T. Bennett, 2009). Features of the study were selected based on the literature to optimise treatment outcome that may have led to greater adherence and programme completion. First, participants were recruited through media and word of mouth in which the programme was offered individually utilising communication technology to reduce stigma and barriers to treatment (Lee, 2014; Peterson et al., 2004; Sachdev, 1990; Thomas et al., 2010; A. D. Williams et al., 2018). In this way client preference to treatment may have influenced adherence and treatment outcome (Lawn et al., 2019; C. J. Williams & Whitfield, 2001). Alternatively, the majority of those interviewed identified the usefulness of having a facilitator who was also of Māori descent and familiar to the recruitment regions, Hamilton (e.g., born and raised) and Porirua (e.g., iwi group) (Norcross & Lambert, 2018). Cultural or ethnic matching were also features in studies by Bennett (2009) and Lee (2014), and may have been a contributing factor to high satisfaction and low dropout rates. This also suggests that the therapeutic relationship remains an important feature of LI-CBT to enhance treatment outcome such as mitigating issues and supporting participants to remain motivated and engaged (Arnow et al., 2013; Baier et al., 2020; Bennett-Levy, Richards, et al., 2010; Krupnick et al., 2006; Tschuschke et al., 2020; C. J. Williams, 2013). Considering the programme remained unadapted, culturally matching the facilitator to clients may be sufficient to enhance

preference, acceptability, and treatment outcomes (Amati et al., 2018; S. T. Bennett, 2009; Lee, 2014).

Overall, participants acknowledged the benefits of the programme which was found to have a high level of acceptability. Participants identified some considerations such as greater flexibility in follow up times, delivery format (e.g., face to face) and the need for more relevant examples which were often viewed as too simple and irrelevant. Cultural considerations for future adaptations align with changes put forward by Bennett (2009) and Mathieson and associates (2012) such as whakatauki, Māori imagery, Māori models of health (e.g., wairua) and use of familiar Māori words. Thus, the findings and literature overall support hypothesis four, that the LLTTF programme was acceptable at an individual level, but some cultural relevance and familiarity was lacking that may potentially enhance treatment outcomes.

Research Contributions and Implications

Māori experience high rates of mental health, despite this there is scant research within the clinical psychology literature particularly within the LI-CBT scope regarding the effectiveness for Māori experiencing low mood. The current study contributes to this void within the literature and provides evidence to support the effectiveness of the LI-CBT to improve low mood, psychological distress and quality of life enjoyment and satisfaction for Māori with mild to moderate low mood. The findings also add to the growing evidence base within New Zealand regarding the effectiveness of LI-CBT for low mood across different adult ethnic groups (i.e., Southeast Asian, Māori and New Zealand European) (T. Fleming, Dixon, Frampton, & Merry, 2012; T. M. Fleming et al., 2019; Kuosmanen, Fleming, Newell, & Barry, 2017; Lucassen et al., 2015; Manage My Health, 2022a; Merry et al., 2012; Montagu, 2015; Scheibmair, 2010) and specifically the effectiveness of LLTTF programme (Forman, 2015; Lee, 2014; Martyn, 2017). To the authors knowledge there is one efficacy study within the clinical psychology literature investigating the effectiveness of a culturally adapted CBT programme (S. T. Bennett, 2009), in which the current study provides an evidence base for an unadapted guided LI-CBT treatment option for Māori using the LLTTF programme. This aligns with a central premise of the study to provide greater access, availability, and choice to mental health interventions for Māori.

The longitudinal design of the study used MLM to analyse within and between person differences in rates of change (Heck et al., 2021; Singer & Willett, 2003). This is important given individuals experience change at different rates and times over the intervention period and maybe predicted by the inclusion of time-invariant (e.g., sex, ethnicity) and time varying (e.g., mood, age) variables. This provides insight into the influences of change; however, complexity requires sufficient nested data from large sample sizes, multiple waves and or numerous groups of data (Kwok et al., 2008) which may be limited by time and resource constraints. The current study had similar analytical technique to Martyn's (2017) study allowing for greater inferences for the effectiveness of the LLTTF programmes across respective populations within New Zealand. LMLM supported the preliminary findings (e.g., OLS regression) and provided greater conclusive evidence of how individuals change trajectories differ or compare similarly to other participants across the intervention period.

The sample size for the current study was similar with local studies although required considerable effort given the recruitment pool for Māori is significantly smaller and more difficult to access (S. T. Bennett, 2009; Forman, 2015; Lee, 2014; Martyn, 2017; Mathieson et al., 2012; Montagu, 2015; Scheibmair, 2010). This was primarily achieved through word of mouth and social media across two regions and continues to be an effective medium for recruiting Māori highlighting the level of networking needed to access suitable Māori participants (Coull & Morris, 2011; Elkington, 2017). Building on the findings from C. J. Williams and Whitfield (2001) to offer LI-CBT to waitlisted participants provided a unique opportunity given Te Rūnanga o Ngāti Toarangatira operates a Kaupapa mental health service. However, the effectiveness of targeting Māori waitlists remains inconclusive as only two waitlisted participants undertook the programme. To be effective it is the writer's opinion that greater coordination with services and less restrictive criteria is needed given the high rate of comorbidity with low mood presentations such as alcohol and cannabis use. Therefore, the current study supports the effectiveness of community-based delivered intervention but provides limited evidence into the effectiveness of LI-CBT in secondary care settings within the community.

The current study shifted away from a 'gold standard' research design such as RCT's to a real world study approach delivering a LI-CBT programme within a community

based setting (Guy et al., 2012; McQueen & Smith, 2015). In this way the study attempted to broaden access to evidence-based interventions (Bennett-Levy, Richards, et al., 2010; Cuijpers, 2017). To promote a sample reflective of real-world presentation the recruitment criteria was less restrictive but ruled out complex presentation and safety concerns similar to other local studies (Martyn, 2017; Montagu, 2015). It was also hoped that less restrictive criteria would promote greater access and increased uptake rate. However, the uptake rate was slow although comparative to similar studies suggesting that enhancing access to treatment remains a significant barrier to be resolved cross culturally especially given the emerging availability of evidence-based interventions (Freire et al., 2015; Martyn, 2017). One reason for the slow uptake rate based on feedback before and during the programme for the current study may be due to heavy social (e.g., iwi) and familial responsibilities making it difficult for individuals to find time to commit to a research design that required monitoring over a six-month period. Socio-cultural responsibilities and values such as manaakitanga also highlight a tendency to prioritise supporting others rather than their own needs (e.g., mental health). This requires understanding and flexibility in managing programme progression particularly for situations regarding tangihanga practices given that funeral proceedings took priority in marae-based communities.

These barriers and others provide support for offering individual and telephone based guided self-help intervention which may provide greater flexibility to traditional and face to face CBT, regarding time constraints due to responsibilities (Bee et al., 2008; Bilich et al., 2008; Mohr et al., 2008; Montagu, 2015; Palmer et al., 2002; Parsonson & Stokes, 2013). The use of this format was highly acceptable with a low level of attrition and supports the effectiveness of telephone guided self-help studies (Bilich et al., 2008; Gould & Clum, 1995; Kenwright et al., 2001; Lovell & Richards, 2000; Mohr et al., 2008; Montagu, 2015; Palmer et al., 2002). The findings also compared similarly to individual and group face to face studies (Lee, 2014; Martyn, 2017) and supports Backhaus and associates (2012) who found no significant difference between telephone and face to face modalities and between group and individually delivered guided self-help interventions. Overall, the research makes meaningful contributions to support a stepped care approach such as LICBT in New Zealand and policy that focusses on early intervention, preventative approaches, and providing greater access to evidence based

self-help interventions (Health and Disability Commissioner, 2018b; Ministry of Health, 2012).

Implications for Clinical Practice

The findings of the current study provide evidence for and efficacy comparative to non-Māori studies to support the implementation of an unadapted LLTTF programme delivered individually to Māori adults experiencing mild to moderate low mood with telephone guided support. Accounting for the affordability and flexibility in delivery the LLTTF programme provides clinical practice with a viable, manageable and cost effective option. However, this may require follow up outside of traditional work hours. The Māori cohort from the current study found this format to be highly acceptable and applicable leading to overall improvements in low mood, psychological distress, and quality of life, however, given the heterogeneity across Māori groups caution should be exercised.

If delivered in a clinical or mental health service, it is important to contextualise the effectiveness of the current study in totality which included the delivery of the LLTTF programme by a Māori facilitator. Therefore, a caveat for practice and research is that the programme facilitatation should be done by a trained Māori facilitator or person with a sound understanding of the cultural idiosyncrasies of Māori within their respective regions (Durie, 1995; Durie et al., 1997; Herbert, 2001).

In consideration of the feedback from participants post programme, the findings would suggest that the therapeutic relationship remains an important attribute considering the time constraints and manualised nature of telephone delivered LI-CBT for Māori and likely enhanced adherence through motivation, mitigation of issues, and cultural understanding as evidenced by the high completion rates and satisfaction (Saxon et al., 2017; C. J. Williams, 2013). The establishment of the therapeutic relationship was initiated in an informal whakawhanaunga process done in person prior to beginning the intervention. The practice was incorporated as an essential cultural protocol and aligns with a previous Māori study (S. T. Bennett, 2009). The influence of the therapeutic relationship likely suggests that ethnic matching is also important (Amati et al., 2018; S. T. Bennett, 2009; M. Cooper et al., 2018; Lee, 2014; Norcross & Lambert, 2018). Although the effect of the therapeutic relationship was not tested in the current study, it is inferred that therapeutic alliance, ethnic matching of the therapist may

promote greater client preference and acceptability of the programme (S. T. Bennett, 2009; M. Cooper et al., 2018; Lee, 2014; Norcross & Lambert, 2018; Pineros-Leano et al., 2017).

Directions for Future Research

Future studies may consider adaptations suggested by the participant of the current study such as the inclusion of whakatauki, Māori terminology, imagery, and models of health (e.g., inclusion of spirituality) which have not been researched in LI-CBT settings. However, the cultural consideration reiterates similar findings from previous studies and may enhance the cultural acceptability and relevance of the LLTTF programme for Māori (Arundell et al., 2021; S. T. Bennett, 2009; Bernal et al., 1995; Interian & Díaz-Martínez, 2007; Kalibatseva & Leong, 2014; Earlise C. Ward & Roger L. Brown, 2015). Aligning with the sentiments of Shepherd and others (2015) and Titov (2007) that acceptbility of programmes should not be assumed, it is therefore reccommended that future research should make changes to the booklets using the cultural suggestion indicated in the current study using a similar reserch design to allow for greater comparisons between unadapted and cutural adapted versions. The effectiveness of the LLTTF programme should be investigated across different Māori groups and face to face individual formats which will expand the evidence base and ability to match interventions to clients preferences and choice.

Efforts to involve Māori male participants should be considered to understand ways to enhance access and further evaluate the effectiveness of the LI-CBT with this under researched population. The implementation of the LLTTF programme to waitlisted clients should be further explored given the long waiting times and could be an effective prevention-intervention strategy (Whitfield et al., 2006; C. J. Williams & Whitfield, 2001). Additionally, recruitment through GP referral may further increase the reach and access to Māori experiencing low mood. Considering the current local literature of CBT (S. T. Bennett, 2009) and LI-CBT studies regarding sample sizes (T. Fleming et al., 2012; Forman, 2015; Manage My Health, 2022a; Martyn, 2017; Montagu, 2015; Scheibmair, 2010), it is unlikely that studies will achieve sufficiently sized samples to generalise results without significant funding, coordination of services and a team of researchers. Acknowledgement is given for the need for a larger sample size and potentially the inclusion of a control group to improve internal validity regarding the cause and effect of

the intervention. However, considerations should be given regarding practicality of research designs in which for example RCT or delayed treatment studies may not be suitable for Māori (such as delayed treatment and or no treatment).

The durability of LI-CBT suggests that the treatment gains from the current study were maintined upto twelve weeks post programme. In acknowledging the high rate of relapse for depression post intervention (Ali et al., 2017; Delgadillo et al., 2018), outcome monitoring should be extended to atleast six months to further understand the durability of LI-CBT interventions for Māori individuals. Understanding the nature of post treatment durability would be insightful to the how to prevent relapse and the effectiveness of implementing follow up sessions.

The current study utilised the CORE-10 an outcome measure made up of depression, anxiety, and trauma items inwhich supplementing an anxiety specific measure such as the Generalised Anxiety Disorder - 7 (GAD-7) (Spitzer et al., 2006) or Becks Anxiety Inventory (BAI) (A. T. Beck et al., 1988) may offer different and richer insights into the effectiveness of LI-CBT. The GAD-7 (Spitzer et al., 2006) and BAI (A. T. Beck et al., 1988) appear to be more frequently utilised in LI-CBT studies compared to the CORE-10 and may provide greater conclusions between similar studies (Ali et al., 2017; Gyani et al., 2013; Lawn et al., 2019; Lee, 2014; Lopez et al., 2014; Martyn, 2017). Additionally, the Q-LES-Q-SF outcome measure maybe substituted by more culturally appropriate measures of wellbeing such as Hua Oranga (Kingi & Durie, 2000; McLachlan, 2022) as utilised in Bennett's (2009) study. Monitoring potential predictor variables such as engagement should be explored to help indentify predictors of change which may enhance delivery and effectivenes of the LLTTF programme (E. Holdsworth et al., 2014; Martyn, 2017). However, future studies should be mindful of the length of completion times for outcome measure to not detract from the importance of the intervention itself particularly if administering multiple measure over an extended time period. Thus the current study selected brief, reliable, and valid outcome measure that were also cost effective (i.e., free).

CHAPTER 9: CONCLUSION

The global burden of common mental health disorders such as depression and anxiety is growing in which Māori the local indigenous group of New Zeland are at greater risk of negative health and disability compared to non-Māori. Despite this outlook it is likley to increase with out intervention and without change to how mental health treatment is delivered. Incorporating a stepped care approach utilising guided and unguided self help such as LI-CBT can help reduce the burden of finite resources whilst simulteneously providing greater access to effective evidence based interventions. However, the effecttiveness of LI-CBT for Māori adults experiencing low mood is absent in the literature. Therefore, the current study sought to explore the effectiveness of an individually delivered guided LI-CBT programme with Māori adults experiencing mild to moderate low mood and to monitor change across additional domains such as psychological distress, and quality of life enjoyment and satification. The LLTTF programme was delivered undapted to establish a baseline or starting point to compare future Māori studies and adaptations within the LI-CBT and clinical scope.

The study provides promising results to support the effectiveness and acceptability of the guided LLTTF programme witin a community setting which overall led to significant improvements in low mood, psychological distress, and quality of life enjoyment and satisfaction that were comparable to simliar studies. LMLM complimented the preliminary analysis helping to explain variation within and between persons inwhich participants who increased in Q-LES-Q-SF overall had a small but significant increase in the rate of change. Additional studies may benefit from adding monitoring variables such as engagement and socioeconomics status as moderators of change to potentially explain individual and group differences which are believed to be heterogenous across the Māori population and may efffect treatment outcome. Therefore, further research is needed to build more conclusive evidence for the effectiveness of LI-CBT across different groups with in the Māori population and to develop more effective recruiment strategies.

The current study endevoured to give the participants a voice regarding their experiences of the programme. Advocating for a bottom up approach in the design and delivery of mental health interventions. It is hoped the feedback from the particpants of

the current study be considered in future developments to increase recruitment, retention and acceptability to programmes such as LLTTF. It is also hoped that the implications of the study may provide insight and considerations for policy and practice in the future to reduce the barriers to accessing evidenced based LI-CBT interventions which can be effective for Māori if implemented, and may contribute to greater wellbeing and prosperity for Māori.

REFERENCES

Abrams, J. A., Hill, A., & Maxwell, M. (2019). Underneath the mask of the strong Black woman schema: Disentangling influences of strength and self-silencing on depressive symptoms among US Black women. *Sex Roles, 80*(9), 517–526. doi:https://doi.org/10.1007/s11199-018-0956-y

Aguilera, A., Bruehlman-Senecal, E., Liu, N., & Bravin, J. J. (2018). Implementing group CBT for depression among Latinos in a primary care clinic. *Cognitive and Behavioral Practice, 25*(1), 135–144. doi:https://doi.org/10.1016/j.cbpra.2017.03.002

Alexander, V. D., Thomas, H., Cronin, A., Fielding, J., Moran-Ellis, J. (2015). Mixed methods. In N. Gilbert & P. Stoneman (eds.), *Researching social life* (pp. 120-138). Thousand Oaks, CA: SAGE Publications Inc.

Ali, S., Rhodes, L., Moreea, O., McMillan, D., Gilbody, S., Leach, C., . . . Delgadillo, J. (2017). How durable is the effect of low intensity CBT for depression and anxiety? Remission and relapse in a longitudinal cohort study. *Behaviour Research and Therapy, 94*, 1–8. doi:https://doi.org/10.1016/j.brat.2017.04.006

Amati, F., Banks, C., Greenfield, G., & Green, J. (2018). Predictors of outcomes for patients with common mental health disorders receiving psychological therapies in community settings: a systematic review. *Journal of Public Health, 40*(3), 375–387. doi:10.1093/pubmed/fdx168

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

American Psychological Association. (2009). *Different approaches to psychotherapy*. Retrieved from https://www.apa.org/topics/psychotherapy/approaches#:~:text=A%20theory%20of%20psychotherapy%20acts,Psychoanalysis%20and%20psychodynamic%20therapies.

American Psychological Association. (2013). *Guidelines for the practice of telepsychology*. Retrieved from https://www.apa.org/practice/guidelines/telepsychology

American Psychological Association. (2022). *Psychological distress*. Retrieved from https://dictionary.apa.org/psychological-distress

Anaru, N. A. (2011). *A critical analysis of the impact of colonisation on the Māori language through an examination of political theory.* (Master's thesis). Auckland University of Technology, Auckland, New Zealand. Retrieved from http://hdl.handle.net/10292/2463

Anderson, C. M., Hogarty, G. E., & Reiss, D. J. (1980). Family treatment of adult schizophrenic patients: A psycho-educational approach. *Schizophrenia Bulletin, 6*(3), 490–505. doi:https://doi.org/10.1093/schbul/6.3.490

Anderson, L., Lewis, G., Araya, R., Elgie, R., Harrison, G., Proudfoot, J., . . . Williams, C. (2005). Self-help books for depression: How can practitioners and patients make the right choice? *British Journal of General Practice, 55*(514), 387–392.

Andersson, G., & Cuijpers, P. (2009). Internet-based and other computerized psychological treatments for adult depression: A meta-analysis. *Cognitive Behaviour Therapy, 38*(4), 196–205. doi:10.1080/16506070903318960

Andersson, G., Hesser, H., Veilord, A., Svedling, L., Andersson, F., Sleman, O., . . . Zetterqvist, V. (2013). Randomised controlled non-inferiority trial with 3-year follow-up of internet-delivered versus face-to-face group cognitive behavioural therapy for depression. *Journal of affective disorders, 151*(3), 986–994. doi:10.1016/j.jad.2013.08.022

Andrade, L. H., Alonso, J., Mneimneh, Z., Wells, J., Al-Hamzawi, A., Borges, G., . . . De Graaf, R. (2014). Barriers to mental health treatment: Results from the WHO World Mental Health surveys. *Psychological Medicine, 44*(6), 1303–1317. doi:10.1017/S0033291713001943

Andrews, G., Cuijpers, P., Craske, M. G., McEvoy, P., & Titov, N. (2010). Computer therapy for the anxiety and depressive disorders is effective, acceptable and practical health care: A meta-analysis. *PLoS One, 5*(10), 1–6. doi:10.1371/journal.pone.0013196

Andrews, L. A., Hayes, A. M., Abel, A., & Kuyken, W. (2020). Sudden gains and patterns of symptom change in cognitive-behavioral therapy for treatment-resistant depression. *Journal of Consulting and Clinical Psychology, 88*(2), 106–118. doi:10.1037/ccp0000467

Anik, E., West, R. M., Cardno, A. G., & Mir, G. (2021). Culturally adapted psychotherapies for depressed adults: A systematic review and meta-analysis. *Journal of Affective Disorders, 278*, 296–310. doi:10.1016/j.jad.2020.09.051

Apodaca, T. R., & Miller, W. R. (2003). A meta-analysis of the effectiveness of bibliotherapy for alcohol problems. *Journal of Clinical Psychology, 59*(3), 289–304. doi:10.1002/jclp.10130

Arnow, B. A., Blasey, C., Manber, R., Constantino, M. J., Markowitz, J. C., Klein, D. N., . . . Rush, A. J. (2007). Dropouts versus completers among chronically depressed outpatients. *Journal of Affective Disorders, 97*(1-3), 197–202. doi:10.1016/j.jad.2006.06.017

Arnow, B. A., Steidtmann, D., Blasey, C., Manber, R., Constantino, M. J., Klein, D. N., . . . Fisher, A. J. (2013). The relationship between the therapeutic alliance and treatment outcome in two distinct psychotherapies for chronic depression. *Journal of Consulting and Clinical Psychology, 81*(4), 627–638. doi:10.1037/a0031530

Arroll, B., Goodyear-Smith, F., Crengle, S., Gunn, J., Kerse, N., Fishman, T., . . . Hatcher, S. (2010). Validation of PHQ-2 and PHQ-9 to screen for major depression in the primary care population. *The Annals of Family Medicine, 8*(4), 348–353. doi:10.1370/afm.1139

Arundell, L.-L., Barnett, P., Buckman, J. E., Saunders, R., & Pilling, S. (2021). The effectiveness of adapted psychological interventions for people from ethnic minority groups: A systematic review and conceptual typology. *Clinical Psychology Review, 88*, 1–17. doi:10.1016/j.cpr.2021.102063

Arvidsdotter, T., Marklund, B., Kylén, S., Taft, C., & Ekman, I. (2016). Understanding persons with psychological distress in primary health care. *Scandinavian Journal of Caring Sciences, 30*(4), 687–694. doi:10.1111/scs.12289

Asher BlackDeer, A., & Patterson Silver Wolf, D. A. (2020). Evidence Mapping: Interventions for American Indian and Alaska Native Youth Mental Health. *Journal of Evidence-Based Social Work, 17*(1), 49-62. doi:10.1080/26408066.2019.1624237

Atkinson, J., Salmond, C., & Crampton, P. (2014). *NZDep 2013 index of deprivation*. Retrieved from https://www.otago.ac.nz/wellington/otago069936.pdf

Auckland Uniservices Ltd. (2022). SPARX. Retrieved from https://www.sparx.org.nz/home

Ayuso-Mateos, J. L., & Lopez-García, P. (2012). Severity of depressive disorders: Considerations for ICD-11. *World Psychiatry, 11*(1), 48–52.

Bachmann, S. (2018). Epidemiology of suicide and the psychiatric perspective. *International Journal of Environmental Research and Public Health, 15*(7), 1425–1448. doi:10.3390/ijerph15071425

Backhaus, A., Agha, Z., Maglione, M. L., Repp, A., Ross, B., Zuest, D., . . . Thorp, S. R. (2012). Videoconferencing psychotherapy: A systematic review. *Psychological Services, 9*(2), 111–131. doi:10.1037/a0027924

Baier, A. L., Kline, A. C., & Feeny, N. C. (2020). Therapeutic alliance as a mediator of change: A systematic review and evaluation of research. *Clinical Psychology Review, 82*, 1–14. doi:https://doi.org/10.1016/j.cpr.2020.101921

Barkham, M., Bewick, B., Mullin, T., Gilbody, S., Connell, J., Cahill, J., . . . Evans, C. (2013). The CORE-10: A short measure of psychological distress for routine use in the psychological therapies. *Counselling and Psychotherapy Research, 13*(1), 3-13. doi:https://doi.org/10.1080/14733145.2012.729069

Barkham, M., Evans, C., Margison, F., & McGrath, G. (1998). The rationale for developing and implementing core outcome batteries for routine use in service settings and psychotherapy outcome research. *Journal of Mental Health, 7*(1), 35. doi:https://doi.org/10.1080/09638239818328

Barlow, D. H. (2004). *Anxiety and its disorders: The nature and treatment of anxiety and panic*. New York, NY: Thr Guilford press.

Barrera, A. Z., Torres, L. D., & Munoz, R. F. (2007). Prevention of depression: The state of the science at the beginning of the 21st century. *International Review of Psychiatry, 19*(6), 655-670. doi:10.1080/09540260701797894

Beaglehole, E., & Beaglehole, P. (1946). *Some Modern Māoris*. Wellington, New Zealand: Council for Educational Research.

Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York, NY: Harper and Row.

Beck, A. T., Epstein, N., Brown, G., & Steer, R. (1988). Beck anxiety inventory. *Journal of consulting and clinical psychology*. doi:https://doi.org/10.1037/t02025-000

Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. New York, N.Y: The Guilford Press.

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *BDI-II, Beck Depression Inventory: Manual*. San Antonio, TX: The Psychological Corporation.

Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The hopelessness scale. *Journal of Consulting and Clinical Psychology, 42*(6), 861–865. doi:10.1037/h0037562

Beck Institute. (2022). About cognitive behavior therapy. Retrieved from https://beckinstitute.org/about/understanding-cbt/

Bee, P. E., Bower, P., Lovell, K., Gilbody, S., Richards, D., Gask, L., & Roach, P. (2008). Psychotherapy mediated by remote communication technologies: A meta-analytic review. *BMC Psychiatry, 8*(1), 1–13. doi:https://doi.org/10.1186/1471-244X-8-60

Bell, C. C. (1994). DSM-IV: Diagnostic and statistical manual of mental disorders. *JAMA, 272*(10), 828-829. doi:doi:10.1001/jama.1994.03520100096046

Bendelin, N., Hesser, H., Dahl, J., Carlbring, P., Nelson, K. Z., & Andersson, G. (2011). Experiences of guided Internet-based cognitive-behavioural treatment for depression: A qualitative study. *BMC psychiatry, 11*(1), 1-10. doi:https://doi.org/10.1186/1471-244X-11-107

Bennett, S., Flett, R., & Babbage, D. (2008). *The adaptation of cognitive behavioural therapy for adult Maori clients with depression: A pilot study*. Paper presented at the Claiming Spaces: Proceedings of the 2007 National Maori and Pacific Psychologies Symposium 23rd-24th November 2007, Hamilton, New Zealand. Retrieved from https://hdl.handle.net/10289/1549

Bennett, S. T. (2009). *Te huanga o te ao Maori: Cognitive Behavioural Therapy for Maori clients with depression: Development and evaluation of a culturally adapted treatment programme: [Doctoral dissertation, Massey University].* Wellington, New Zealand. Retrieved from http://hdl.handle.net/10179/1159

Bennett, S. T., Flett, R. A., & Babbage, D. R. (2014). Culturally adapted cognitive behaviour therapy for Māori with major depression. *The Cognitive Behaviour Therapist, 7*, 1–16. doi:https://doi.org/10.1017/S1754470X14000233

Bennett-Levy, J. (2019). Why therapists should walk the talk: The theoretical and empirical case for personal practice in therapist training and professional development. *Journal of Behavior Therapy and Experimental Psychiatry, 62*, 133–145. doi:10.1016/j.jbtep.2018.08.004

Bennett-Levy, J., & Farrand, P. (2010). Low intensity CBT models and conceptual underpinnings. In J. Bennett-Levy, P. Farrand, J. Bennett-Levy, D. Richards, P. Farrand, H. Christensen, K. Griffiths, D. Kavanagh, B. Klein, M. A. Lau, J. Proudfoot, L. Ritterband, J. White, & C. Williams (Eds.), *Oxford guide to low intensity CBT interventions* (pp. 1–2). New York, NY: Oxford University Press.

Bennett-Levy, J., Farrand, P., Bennett-Levy, J., Richards, D., Farrand, P., Christensen, H., . . . Williams, C. (2010). *Oxford guide to low intensity CBT interventions*. New York, NY: Oxford University Press.

Bennett-Levy, J., Richards, D. A., & Farrand, P. (2010). Low intensity CBT interventions: A revolution in mental health care. In J. Bennett-Levy, P. Farrand, J. Bennett-Levy, D. Richards, P. Farrand, H. Christensen, K. Griffiths, D. Kavanagh, B. Klein, M. A. Lau, J. Proudfoot, L. Ritterband, J. White, & C. Williams (Eds.), *Oxford Guide to Low Intensity CBT Interventions* (pp. 3–18). New York, NY: Oxford University Press.

Bennett-Levy, J., Wilson, S., Nelson, J., Stirling, J., Ryan, K., Rotumah, D., . . . Beale, D. (2014). Can CBT be effective for Aboriginal Australians? Perspectives of Aboriginal practitioners trained in CBT. *Australian Psychologist, 49*(1), 1-7. doi:https://doi.org/10.1111/ap.12025

Bennion, M. R., Hardy, G., Moore, R. K., & Millings, A. (2017). E-therapies in England for stress, anxiety or depression: what is being used in the NHS? A survey of mental health services. *BMJ Open, 7*(1), 1–9. doi:10.1136/bmjopen-2016-014844

Berger, T., Hämmerli, K., Gubser, N., Andersson, G., & Caspar, F. (2011). Internet-based treatment of depression: A randomized controlled trial comparing guided with unguided self-help. *Cognitive Behaviour Therapy, 40*(4), 251–266. doi:10.1080/16506073.2011.616531

Bernal, G., Bonilla, J., & Bellido, C. (1995). Ecological validity and cultural sensitivity for outcome research: Issues for the cultural adaptation and development of

psychosocial treatments with Hispanics. *Journal of Abnormal Child Psychology, 23*(1), 67-82.

Bilich, L. L., Deane, F. P., Phipps, A. B., Barisic, M., & Gould, G. (2008). Effectiveness of bibliotherapy self-help for depression with varying levels of telephone helpline support. *Clinical Psychology & Psychotherapy, 15*(2), 61-74. doi:10.1002/cpp.562

Bishop, R. (1999). *Kaupapa Maori Research: An indigenous approach to creating knowledge*. Paper presented at the Maori and psychology: Research and practice. Proceedings of a symposium sponsored by the Maori & Psychology Research Unit, Department of Psychology, Hamilton, New Zealand. Conference Contribution retrieved from https://hdl.handle.net/10289/874

Bishop, R., & Glynn, T. (1999). Researching in Maori contexts: An interpretation of participatory consciousness. *Journal of Intercultural Studies, 20*(2), 167–182. doi:https://doi.org/10.1080/07256868.1999.9963478

Boothroyd, L., Dagnan, D., & Muncer, S. (2019). PHQ-9: One factor or two? *Psychiatry Research, 271*, 532–534. doi:https://doi.org/10.1016/j.psychres.2018.12.048

Bosc, M., Dubini, A., & Polin, V. (1997). Development and validation of a social functioning scale, the Social Adaptation Self-evaluation Scale. *Eur Neuropsychopharmacol, 7 Suppl 1*, s57–70. doi:10.1016/s0924-977x(97)00420-3

Bouchard, S., Paquin, B., Payeur, R., Allard, M., Rivard, V., Fournier, T., . . . Lapierre, J. (2004). Delivering cognitive-behavior therapy for panic disorder with agoraphobia in videoconference. *Telemedicine Journal and E-health, 10*(1), 13-25. doi:10.1089/153056204773644535

Bower, P., & Gilbody, S. (2005). Stepped care in psychological therapies: Access, effectiveness and efficiency: Narrative literature review. *The British Journal of Psychiatry, 186*(1), 11-17. doi:10.1192/bjp.186.1.11

Bower, P., Kontopantelis, E., Sutton, A., Kendrick, T., Richards, D. A., Gilbody, S., . . . Liu, E. T. (2013). Influence of initial severity of depression on effectiveness of low intensity interventions: Meta-analysis of individual patient data. *BMJ, 346*, 1–11. doi:10.1136/bmj.f540

Boyd, L., Baker, E., & Reilly, J. (2019). Impact of a progressive stepped care approach in an improving access to psychological therapies service: An observational study. *PLoS One, 14*(4), 1–16. doi:10.1371/journal.pone.0214715

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Brenes, G. A., Ingram, C. W., & Danhauer, S. C. (2011). Benefits and challenges of conducting psychotherapy by telephone. *Professional Psychology: Research and Practice, 42*(6), 543–549. doi:10.1037/a0026135

Bunting, A. J. (2011). *Evaluating stepped care in the Waitemata District Health Board Mental Health Service: implementation of the stepped care model of healthcare provision [Masters thesis, Auckland University of Technology].* Auckland, New Zealand. Retrieved from http://hdl.handle.net/10292/5221

Buntrock, C., Berking, M., Smit, F., Lehr, D., Nobis, S., Riper, H., . . . Ebert, D. (2017). Preventing depression in adults with subthreshold depression: Health-economic evaluation alongside a pragmatic randomized controlled trial of a web-based intervention. *Journal of Medical Internet Research, 19*(1), 1–16. doi:10.2196/jmir.6587

Cameron, I. M., Crawford, J. R., Lawton, K., & Reid, I. C. (2008). Psychometric comparison of PHQ-9 and HADS for measuring depression severity in primary care. *British Journal of General Practice, 58*(546), 32–36. doi:10.3399/bjgp08X263794

Cascade, E., Kalali, A. H., & Kennedy, S. H. (2009). Real-world data on SSRI antidepressant side effects. *Psychiatry (Edgmont), 6*(2), 16–18. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719451/

Cavanagh, J. T., Carson, A. J., Sharpe, M., & Lawrie, S. M. (2003). Psychological autopsy studies of suicide: A systematic review. *Psychological Medicine, 33*(3), 395-405. doi:10.1017/s0033291702006943

Cavanagh, K., Seccombe, N., & Lidbetter, N. (2011). The implementation of computerized cognitive behavioural therapies in a service user-led, third sector self help clinic. *Behavioural and Cognitive Psychotherapy, 39*(4), 427–442. doi:10.1017/S1352465810000858

Chaddock, A. (2013). The therapeutic relationship. In M. Papworth, T. Marrinan, B. Martin, & D. Keegan (Eds.), *Low intensity cognitive-behaviour therapy: A practitioner's guide* (pp. 69–84). Thousand Oaks, CA: SAGE Publications.

Chan, S. W., & Adams, M. (2014). Service use, drop-out rate and clinical outcomes: A comparison between high and low intensity treatments in an IAPT service. *Behavioural and Cognitive Psychotherapy, 42*(6), 747-759. doi:10.1017/S1352465813000544

Chapple, S. (2000). Maori socio-economic disparity. *Political Science, 52*(2), 101–115. doi:https://doi.org/10.1177/003231870005200201

Chellingsworth, M., Williams, C., McCreath, A., Tanto, P., & Thomlinson, K. (2010). Using CBT-based self-help classes to deliver written materials in health service, further education and voluntary sector settings. In J. Bennett-Levy, P. Farrand, J. Bennett-Levy, D. Richards, P. Farrand, H. Christensen, K. Griffiths, D. Kavanagh, B. Klein, M. A. Lau, J. Proudfoot, L. Ritterband, J. White, & C. Williams (Eds.), *Oxford guide to low intensity CBT interventions* (pp. 215-223).

Cheng, P., Luik, A. I., Fellman-Couture, C., Peterson, E., Joseph, C. L. M., Tallent, G., . . . Drake, C. L. (2019). Efficacy of digital CBT for insomnia to reduce depression across demographic groups: a randomized trial. *Psychological Medicine, 49*(3), 491-500. doi:10.1017/S0033291718001113

Chisholm, D., Sweeny, K., Sheehan, P., Rasmussen, B., Smit, F., Cuijpers, P., & Saxena, S. (2016). Scaling-up treatment of depression and anxiety: A global return on investment analysis. *The Lancet Psychiatry, 3*(5), 415-424. doi:https://doi.org/10.1016/S2215-0366(16)30024-4

Chowdhary, N., Jotheeswaran, A., Nadkarni, A., Hollon, S., King, M., Jordans, M., . . . Patel, V. (2014). The methods and outcomes of cultural adaptations of psychological treatments for depressive disorders: A systematic review. *Psychological medicine, 44*(6), 1131-1146. doi:10.1017/S0033291713001785

Chung, Y. S., & Kwon, J.-H. (2008). The efficacy of bibliotherapy for social phobia. *Brief Treatment and Crisis Intervention, 8*(4), 390. doi:10.1093/brief-treatment/mhp001

Clark, D. M. (2011). Implementing NICE guidelines for the psychological treatment of depression and anxiety disorders: The IAPT experience. *International Review of Psychiatry, 23*(4), 318-327. doi:10.3109/09540261.2011.606803

Clark, D. M. (2018). Realizing the mass public benefit of evidence-based psychological therapies: The IAPT program. *Annual Review of Clinical Psychology, 14*(1), 159-183. doi:10.1146/annurev-clinpsy-050817-084833

Clark, D. M., Layard, R., Smithies, R., Richards, D. A., Suckling, R., & Wright, B. (2009). Improving access to psychological therapy: Initial evaluation of two UK demonstration sites. *Behaviour Research and Therapy, 47*(11), 910-920. doi:10.1016/j.brat.2009.07.010

Clarke, H., Morris, W., Catanzano, M., Bennett, S., Coughtrey, A. E., Heyman, I., . . . Batura, N. (2022). Cost-effectiveness of a mental health drop-in centre for young people with long-term physical conditions. *BMC Health Services Research, 22*(1), 1-12. doi:10.1186/s12913-022-07901-x

Coar, W. (2019). Sample size determination with SAS studio. Retrieved from https://www.sas.com/content/dam/SAS/support/en/sas-global-forum-proceedings/2019/3264-2019.pdf

Coates, R., Ayers, S., de Visser, R., & Thornton, A. (2020). Evaluation of the CORE-10 to assess psychological distress in pregnancy. *Journal of Reproductive and Infant Psychology, 38*(3), 311-323. doi:https://doi.org/10.1080/02646838.2019.1702631

Connell, J., & Barkham, M. (2007). *CORE-10 user manual, version 1.1. CORE System Trust & CORE Information Management Systems Ltd*.

Cooley, C., Park, Y., Ajilore, O., Leow, A., & Nyenhuis, S. M. (2022). Impact of interventions targeting anxiety and depression in adults with asthma. *Journal of Asthma, 59*(2), 273-287. doi:10.1080/02770903.2020.1847927

Cooper, A. A., & Conklin, L. R. (2015). Dropout from individual psychotherapy for major depression: A meta-analysis of randomized clinical trials. *Clinical Psychology Review, 40*, 57-65. doi:10.1016/j.cpr.2015.05.001

Cooper, E., & Wharewera-Mika, J. (2011). Healing: Towards an understanding of Māori child maltreatment. In T. McIntosh & M. Mulholland (Eds.), *Māori and social issues: Volume 1*. Wellington, New Zealand: Huia Publishers.

Cooper, M., Messow, C.-M., McConnachie, A., Freire, E., Elliott, R., Heard, D., . . . Morrison, J. (2018). Patient preference as a predictor of outcomes in a pilot trial of person-centred counselling versus low-intensity cognitive behavioural therapy

for persistent sub-threshold and mild depression. *Counselling Psychology Quarterly, 31*(4), 460-476. doi:https://doi.org/10.1080/09515070.2017.1329708

Copeland, W. E., Adair, C. E., Smetanin, P., Stiff, D., Briante, C., Colman, I., . . . Jane Costello, E. (2013). Diagnostic transitions from childhood to adolescence to early adulthood. *Journal of Child Psychology and Psychiatry, 54*(7), 791-799. doi:10.1111/jcpp.12062

Cougle, J. R., & Grubaugh, A. L. (2022). Do psychosocial treatment outcomes vary by race or ethnicity? A review of meta-analyses. *Clinical Psychology Review, 96*(2022), 1–8. doi:10.1016/j.cpr.2022.102192

Coull, G., & Morris, P. G. (2011). The clinical effectiveness of CBT-based guided self-help interventions for anxiety and depressive disorders: A systematic review. *Psychological medicine, 41*(11), 2239-2252. doi:10.1017/S0033291711000900

Cram, F. (2001). Rangahau Māori: Tona tika, tona pono – the validity and integrity of Māori research. In M. Tolich (Ed.), *Research Ethics in Aotearoa New Zealand* (pp. 35–52). Auckland, New Zealand: Pearson Education.

Cram, F. (2009). Maintaining indigenous voices. In D. M. Mertens & P. E. Ginsberg (Eds.), *The Handbook of Social Research Ethics*. doi:10.4135/9781483348971

Cram, F. (2017). Kaupapa Māori health research. In P. Liamputtong (Ed.), *Handbook of research methods in health social sciences* (pp. 1-18). Singapore: Springer Singapore.

Cuijpers, P. (1997). Bibliotherapy in unipolar depression: A meta-analysis. *Journal of Behavior Therapy and Experimental Psychiatry, 28*(2), 139-147. doi:10.1016/s0005-7916(97)00005-0

Cuijpers, P. (2017). Four decades of outcome research on psychotherapies for adult depression: An overview of a series of meta-analyses. *Canadian Psychology/Psychologie Canadienne, 58*(1), 7–19. doi:https://doi.org/10.1037/cap0000096

Cuijpers, P., de Graaf, R., & van Dorsselaer, S. (2004). Minor depression: Risk profiles, functional disability, health care use and risk of developing major depression. *Journal of Affective Disorders, 79*(1-3), 71-79. doi:10.1016/S0165-0327(02)00348-8

Cuijpers, P., de Wit, L., Kleiboer, A., Karyotaki, E., & Ebert, D. D. (2018). Problem-solving therapy for adult depression: An updated meta-analysis. *European Psychiatry, 48*(1), 27-37. doi:10.1016/j.eurpsy.2017.11.006

Cuijpers, P., Donker, T., van Straten, A., Li, J., & Andersson, G. (2010). Is guided self-help as effective as face-to-face psychotherapy for depression and anxiety disorders? A systematic review and meta-analysis of comparative outcome studies. *Psychological Medicine, 40*(12), 1943-1957. doi:10.1017/S0033291710000772

Cuijpers, P., & Gentili, C. (2017). Psychological treatments are as effective as pharmacotherapies in the treatment of adult depression: A summary from Randomized Clinical Trials and neuroscience evidence. *Research in Psychotherapy: Psychopathology, Process, and Outcome, 20*(2), 147–152. doi:10.4081/ripppo.2017.273

Cuijpers, P., Karyotaki, E., Reijnders, M., & Ebert, D. (2019). Was Eysenck right after all? A reassessment of the effects of psychotherapy for adult depression. *Epidemiology and Psychiatric Sciences, 28*(1), 21-30. doi:10.1017/S2045796018000057

Cuijpers, P., Noma, H., Karyotaki, E., Cipriani, A., & Furukawa, T. A. (2019). Effectiveness and acceptability of cognitive behavior therapy delivery formats in adults with depression: A network meta-analysis. *JAMA Psychiatry, 76*(7), 700-707. doi:10.1001/jamapsychiatry.2019.0268

Cuijpers, P., Quero, S., Noma, H., Ciharova, M., Miguel, C., Karyotaki, E., . . . Furukawa, T. A. (2021). Psychotherapies for depression: A network meta-analysis covering efficacy, acceptability and long-term outcomes of all main treatment types. *World Psychiatry, 20*(2), 283-293. doi:10.1002/wps.20860

Cuijpers, P., Sijbrandij, M., Koole, S. L., Andersson, G., Beekman, A. T., & Reynolds III, C. F. (2013). The efficacy of psychotherapy and pharmacotherapy in treating depressive and anxiety disorders: A meta-analysis of direct comparisons. *World Psychiatry, 12*(2), 137-148. doi:10.1002/wps.20038

Cuijpers, P., & Smit, F. (2004). Subthreshold depression as a risk indicator for major depressive disorder: A systematic review of prospective studies. *Acta Psychiatrica Scandinavica, 109*(5), 325-331. doi:10.1111/j.1600-0447.2004.00301.x

D'zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. *Journal of Abnormal Psychology, 78*(1), 107–126. doi:10.1037/h0031360

Daly, M., & Robinson, E. (2022). Depression and anxiety during COVID-19. *The Lancet, 399*(10324), 518. doi:https://doi.org/10.1016/S0140-6736(22)00187-8

Dattilio, F. M., & Hanna, M. A. (2012). Collaboration in cognitive-behavioral therapy. *Journal of Clinical Psychology, 68*(2), 146-158. doi:10.1002/jclp.21831

David, D., Cristea, I., & Hofmann, S. G. (2018). Why cognitive behavioral therapy is the current gold standard of psychotherapy. *Frontiers in Psychiatry, 9*(4), 1–3. doi:10.3389/fpsyt.2018.00004

Davies, S., Elkington, A., & Winslade, J. (1993). Putangitangi: A model for understanding the implications of Maori intra-cultural differences for helping strategies. *New Zealand Association of Counsellors Journal, 15*(2), 2-6. Retrieved from https://nzac.org.nz/assets/Uploads/Journals/1.-Putangitangi-A-Model-for-Understanding-th-Implications-of-Maori-Intra-Cultura-Differences-for-Helping-Strategies.pdf

Davis, L., Uezato, A., Newell, J. M., & Frazier, E. (2008). Major depression and comorbid substance use disorders. *Current Opinion in Psychiatry, 21*(1), 14-18. doi:10.1097/YCO.0b013e3282f32408

De Jesús-Romero, R., Wasil, A., & Lorenzo-Luaces, L. (2022). Willingness to use internet-based versus bibliotherapy interventions in a representative US sample: Cross-sectional survey study. *JMIR formative research, 6*(8), 1–9. doi:10.2196/39508

Delgadillo, J., McMillan, D., Lucock, M., Leach, C., Ali, S., & Gilbody, S. (2014). Early changes, attrition, and dose–response in low intensity psychological interventions. *British Journal of Clinical Psychology, 53*(1), 114-130. doi:10.1111/bjc.12031

Delgadillo, J., Rhodes, L., Moreea, O., McMillan, D., Gilbody, S., Leach, C., . . . Excellence, U. (2018). Relapse and recurrence of common mental health problems after low intensity CBT: The WYLOW longitudinal cohort study. *Psychotherapy and Psychosomatics, 87*(2), 116–117. doi:https://doi.org/10.1159/000485386

Department of Corrections. (2022). *Prison facts and statistics- June 2022*. Retrieved from https://www.corrections.govt.nz/resources/statistics/quarterly_prison_statistics/prison_stats_june_2022

Department of Health. (2001). *Treatment choice in psychological therapies and counselling: Evidence based clnical pratice guideline*. Retrieved from https://www.afforthecc.org/images/media/treatment_choice_02.pdf

Department of Health. (2008). *IAPT implementation plan: National guidelines for regional delivery*. London, England: Department of Health, Retrieved from https://www.mhinnovation.net/sites/default/files/downloads/innovation/tools/Low-Intensity.pdf

Dobson, D. J. G., & Dobson, K. S. (2009). *Evidence-based practice of cognitive-behavioral therapy*. Retrieved from https://ezproxy.massey.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=cat09011a&AN=mul.oai.edge.massey.folio.ebsco.com.fs00001086.a97c98f9.4de7.50e0.8328.85c362f35c44&site=eds-live&scope=site&authtype=sso&custid=s3027306

Dozois, D. J. A., Dobson, K. S., & Rnic, K. (2019). Historical and philosophical bases of the cognitive-behavioural therapies. In K. S. Dobson & D. J. A. Dozois (Eds.), *Handbook of cognitive-behavioral therapies, fourth edition*. New York, NY: Guilford Publications.

Driessen, E., Dekker, J. J. M., Peen, J., Van, H. L., Maina, G., Rosso, G., . . . Cuijpers, P. (2020). The efficacy of adding short-term psychodynamic psychotherapy to antidepressants in the treatment of depression: A systematic review and meta-analysis of individual participant data. *Clinical Psychology Review, 80*, 1–10. doi:10.1016/j.cpr.2020.101886

Durie, M. (1982). *Te Whare Tapa Whā model.* Paper presented at the Paper delivered at Hui Taumata and shared as part of training to the New Zealand Psychologists Conference Palmerston North, New Zealand, March 10th.

Durie, M. (1994). Whaiora Mana-a-Iwi: Mäori Development and Health Reforms. In. Auckland, New Zealand: Oxford University Press.

Durie, M. (1995). *Nga matatini Maori: diverse Maori realities*. Paper presented at the Wānanga pūrongo Kōrerorero, Tūrangawaewae marae, Ngāruawahia, New Zealand, February 15th. https://www.moh.govt.nz/notebook/nbbooks.nsf/0/5C2460657783B86A4C2565D700185D75/$file/Nga%20matatini.pdf

Durie, M., Allan, G., Cunningham, C., Edwards, W., Gillies, A., Kingi, T., . . . Waldon, J. (1997). *Oranga Kaumātua: The health and wellbeing of older Māori people: A report prepared for the Ministry of Health and Te Puni Kōkiri*. Retrieved from Wellington, New Zealand:

Earl, T. (2010). Talking therapies and the stepped care model. *Journal of the New Zealand College of Clinical Psychologists, 20*(2), 13–16. Retrieved from https://www.nzccp.co.nz/assets/Uploads/Talking-therapies-and-the-stepped-care-model.pdf

Eaton, W. W., Badawi, M., & Melton, B. (1995). Prodromes and precursors: Epidemiologic data for primary prevention of disorders with slow onset. *The American Journal of Psychiatry, 152*(7), 967–972. doi:10.1176/ajp.152.7.967

Eisen, J. L., Mancebo, M. A., Pinto, A., Coles, M. E., Pagano, M. E., Stout, R., & Rasmussen, S. A. (2006). Impact of obsessive-compulsive disorder on quality of life. *Comprehensive Psychiatry, 47*(4), 270–275. doi:10.1016/j.comppsych.2005.11.006

Elkington, A. (2017). The everyday lives of young Māori fathers: An explorative study. *Journal of Indigenous Wellbeing, 2*(3), 3-17. Retrieved from https://journalindigenouswellbeing.co.nz/media/2022/01/57.77.An-explorative-study-into-the-everyday-lives-of-young-Maori-fathers.pdf

Endicott, J., Nee, J., Harrison, W., & Blumenthal, R. (1993). Quality of Life Enjoyment and Satisfaction Questionnaire: A new measure. *Psychopharmacology Bulletin, 29*(2), 321–326.

Escobar, K. M., & Gorey, K. M. (2018). Cognitive behavioral interventions for depression among Hispanic people: Promising meta-analytic evidence for deep cultural adaptations. *Social Work in Mental Health, 16*(6), 746-758. doi:https://doi.org/10.1080/15332985.2018.1476284

Evans, C., Mellor-Clark, J., Margison, F., Barkham, M., Audin, K., Connell, J., & McGrath, G. (2000). CORE: Clinical outcomes in routine evaluation. *Journal of Mental Health, 9*(3), 247-255. doi:https://doi.org/10.1080/jmh.9.3.247.255

Farrand, P. (2020). *Low-intensity CBT skills and interventions: A practitioner's manual*. Thousand Oaks, CA: Sage Publications Ltd.

Farrand, P., & Williams, C. (2010). Low intensity CBT assessment: in person or by phone. In J. Bennett-Levy, D. Richards, P. Farrand, H. Christensen, K. Griffiths, D. Kavanagh, B. Klein, M. A. Lau, J. Proudfoot, L. Ritterband, J. White, & C. Williams (Eds.), *Oxford Guide to Low Intensity CBT Interventions* (pp. 89–96). Oxford, United Kingdom: Oxford University Press.

Farrand, P., & Woodford, J. (2013). Impact of support on the effectiveness of written cognitive behavioural self-help: A systematic review and meta-analysis of randomised controlled trials. *Clinical Psychology Review, 33*(1), 182–195. doi:10.1016/j.cpr.2012.11.001

Farrand, P., Woodford, J., Coumoundouros, C., & Svedin, F. (2020). Supported cognitive-behavioural therapy self-help versus treatment-as-usual for depressed informal caregivers of stroke survivors (CEDArS): Feasibility randomised controlled trial. *The Cognitive Behaviour Therapist, 13*, 1–15.

Fergusson, D. M., Horwood, L. J., Ridder, E. M., & Beautrais, A. L. (2005). Subthreshold depression in adolescence and mental health outcomes in adulthood. *Archives of General Psychiatry, 62*(1), 66–72. doi:10.1001/archpsyc.62.1.66

Finegan, M., Firth, N., Wojnarowski, C., & Delgadillo, J. (2018). Associations between socioeconomic status and psychological therapy outcomes: A systematic review and meta-analysis. *Depression and Anxiety, 35*(6), 560–573. doi:10.1002/da.22765

Firth, N., Barkham, M., & Kellett, S. (2015). The clinical effectiveness of stepped care systems for depression in working age adults: A systematic review. *Journal of Affective Disorders, 170*, 119–130. doi:10.1016/j.jad.2014.08.030

Fleming, T., Dixon, R., Frampton, C., & Merry, S. (2012). A pragmatic randomized controlled trial of computerized CBT (SPARX) for symptoms of depression among adolescents excluded from mainstream education. *Behavioural and Cognitive Psychotherapy, 40*(5), 529–541. doi:10.1017/S1352465811000695

Fleming, T. M., Stasiak, K., Moselen, E., Hermansson-Webb, E., Shepherd, M., Lucassen, M., . . . Merry, S. N. (2019). Revising computerized therapy for wider appeal among adolescents: Youth perspectives on a revised version of SPARX. *Frontiers in Psychiatry, 10*, 1–9. doi:10.3389/fpsyt.2019.00802

Floyd, M., Scogin, F., McKendree-Smith, N. L., Floyd, D. L., & Rokke, P. D. (2004). Cognitive therapy for depression: a comparison of individual psychotherapy and bibliotherapy for depressed older adults. *Behavior Modification, 28*(2), 297–318. doi:10.1177/0145445503259284

Flückiger, C., Del Re, A. C., Wampold, B. E., & Horvath, A. O. (2018). The alliance in adult psychotherapy: A meta-analytic synthesis. *Psychotherapy, 55*(4), 316–340. doi:10.1037/pst0000172

Fonagy, P. (2015). The effectiveness of psychodynamic psychotherapies: An update. *World Psychiatry, 14*(2), 137–150. doi:10.1002/wps.20235

Forman, I. (2015). *"Help yourself to CBT": Mechanisms of change within a group guided self-help programme targeting low mood in New Zealand [Doctoral dissertation, Massey University].* Massey University, Albany, New Zealand. Retrieved from http://hdl.handle.net/10179/7391

Fortney, J. C., Pyne, J. M., Mouden, S. B., Mittal, D., Hudson, T. J., Schroeder, G. W., . . . Rost, K. M. (2013). Practice-based versus telemedicine-based collaborative care for depression in rural federally qualified health centers: A pragmatic randomized comparative effectiveness trial. *American Journal of Psychiatry, 170*(4), 414–425. doi:10.1176/appi.ajp.2012.12050696

Fournier, J. C., DeRubeis, R. J., Hollon, S. D., Dimidjian, S., Amsterdam, J. D., Shelton, R. C., & Fawcett, J. (2010). Antidepressant drug effects and depression severity: A patient-level meta-analysis. *JAMA, 303*(1), 47–53. doi:10.1001/jama.2009.1943

Freire, E., Williams, C. J., Messow, C.-M., Cooper, M., Elliott, R., McConnachie, A., . . . Morrison, J. (2015). Counselling versus low-intensity cognitive behavioural therapy for persistent sub-threshold and mild depression (CLICD): A pilot/feasibility randomised controlled trial. *BMC psychiatry, 15*(1), 1–11. doi:10.1186/s12888-015-0582-y

Gartlehner, G., Gaynes, B. N., Amick, H. R., Asher, G., Morgan, L. C., Coker-Schwimmer, E., . . . Gaylord, S. (2015). *Nonpharmacological versus pharmacological treatments for adult patients with major depressive disorder*. Rockville, MD: Agency for Healthcare Research and Quality Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK338245/

Gaston, L., & Sabourin, S. (1992). Client satisfaction and social desirability in psychotherapy. *Evaluation and Program Planning, 15*(3), 227–231. doi:https://doi.org/10.1016/0149-7189(92)90085-9

Gautam, M., Tripathi, A., Deshmukh, D., & Gaur, M. (2020). Cognitive behavioral therapy for depression. *Indian Journal of Psychiatry, 62*(Suppl 2), 223–229. doi:10.4103/psychiatry.IndianJPsychiatry_772_19

Gelhorn, H. L., Sexton, C. C., & Classi, P. M. (2011). Patient preferences for treatment of major depressive disorder and the impact on health outcomes: A systematic review. *The Primary Care Companion for CNS Disorders, 13*(5), 1–16. doi:10.4088/PCC.11r01161

Gellatly, J., Bower, P., Hennessy, S., Richards, D., Gilbody, S., & Lovell, K. (2007). What makes self-help interventions effective in the management of depressive symptoms? Meta-analysis and meta-regression. *Psychological Medicine, 37*(9), 1217–1228. doi:10.1017/S0033291707000062

Germain, V., Marchand, A., Bouchard, S., Drouin, M. S., & Guay, S. (2009). Effectiveness of cognitive behavioural therapy administered by videoconference for posttraumatic stress disorder. *Cognitive Behaviour Therapy, 38*(1), 42–53. doi:10.1080/16506070802473494

Gilbody, S., Richards, D., & Barkham, M. (2007). Diagnosing depression in primary care using self-completed instruments: UK validation of PHQ–9 and CORE–OM. *British Journal of General Practice, 57*(541), 650–652. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2099671/#__ffn_sectitle

Glas, C. A. W. (2010). Missing Data. In P. Peterson, E. Baker, & B. McGaw (Eds.), *International Encyclopedia of Education (Third Edition)* (pp. 283–288). Oxford, UK: Elsevier Ltd.

Glover, M., & Hirini, P. (2005). Maori psychology: A long way from Imago, he ara roa tonu. *New Zealand Journal of Psychology, 34*(1), 2–4. Retrieved from https://link.gale.com/apps/doc/A132677462/HRCA?u=anon~4f62018d&sid=googleScholar&xid=8b188466

Golden, K. (2011). Careers and employment, work and occupational: Low intensity, but a high caseload. Retrieved from https://www.bps.org.uk/psychologist/low-intensity-high-caseload

Gonçalves, D. C., & Byrne, G. J. (2012). Interventions for generalized anxiety disorder in older adults: Systematic review and meta-analysis. *Journal of Anxiety Disorders, 26*(1), 1–11. doi:10.1016/j.janxdis.2011.08.010

Gonzalez Salas Duhne, P., Delgadillo, J., & Lutz, W. (2022). Predicting early dropout in online versus face-to-face guided self-help: A machine learning approach. *Behaviour Research and Therapy, 159*, 1–8. doi:https://doi.org/10.1016/j.brat.2022.104200

González-Blanch, C., Medrano, L. A., Muñoz-Navarro, R., Ruíz-Rodríguez, P., Moriana, J. A., Limonero, J. T., . . . Group, P. R. (2018). Factor structure and measurement invariance across various demographic groups and over time for the PHQ-9 in primary care patients in Spain. *PLoS One, 13*(2), 1–16. doi:10.1371/journal.pone.0193356

Gould, R. A., & Clum, G. A. (1995). Self-help plus minimal therapist contact in the treatment of panic disorder: A replication and extension. *Behavior Therapy, 26*(3), 533–546. doi:https://doi.org/10.1016/S0005-7894(05)80099-1

Green, H., Barkham, M., Kellett, S., & Saxon, D. (2014). Therapist effects and IAPT Psychological Wellbeing Practitioners (PWPs): A multilevel modelling and mixed methods analysis. *Behaviour Research and Therapy, 63*, 43–54. doi:10.1016/j.brat.2014.08.009

Greenberger, D., & Padesky, C. A. (1995). *Mind over Mood: A cognitive therapy treatment manual for clients*. New York, NY: Guilford Press.

Gregory, R. J., Schwer Canning, S., Lee, T. W., & Wise, J. C. (2004). Cognitive Bibliotherapy for Depression: A Meta-Analysis. *Professional Psychology: Research and Practice, 35*(3), 275–280. doi:https://doi.org/10.1037/0735-7028.35.3.275

Grenyer, B. F., Lewis, K. L., Fanaian, M., & Kotze, B. (2018). Treatment of personality disorder using a whole of service stepped care approach: A cluster randomized controlled trial. *PLoS One, 13*(11), 1–13. doi:10.1371/journal.pone.0206472

Grist, R., & Cavanagh, K. (2013). Computerised cognitive behavioural therapy for common mental health disorders, what works, for whom under what circumstances? A systematic review and meta-analysis. *Journal of Contemporary Psychotherapy, 43*(4), 243-251. doi:https://doi.org/10.1007/s10879-013-9243-y

Grover, M., Naumann, U., Mohammad-Dar, L., Glennon, D., Ringwood, S., Eisler, I., . . . Schmidt, U. (2011). A randomized controlled trial of an Internet-based cognitive-behavioural skills package for carers of people with anorexia nervosa. *Psychological Medicine, 41*(12), 2581–2591. doi:10.1017/s0033291711000766

Gualano, M. R., Bert, F., Martorana, M., Voglino, G., Andriolo, V., Thomas, R., . . . Siliquini, R. (2017). The long-term effects of bibliotherapy in depression treatment: Systematic review of randomized clinical trials. *Clinical Psychology Review, 58*, 49–58. doi:10.1016/j.cpr.2017.09.006

Guy, A., Loewenthal, D., Thomas, R., & Stephenson, S. (2012). Scrutinising NICE: The impact of the National Institute for Health and Clinical Excellence Guidelines on the provision of counselling and psychotherapy in primary care in the UK. *Psychodynamic Practice, 18*(1), 25–50. doi:https://doi.org/10.1080/14753634.2012.640153

Gyani, A., Shafran, R., Layard, R., & Clark, D. M. (2013). Enhancing recovery rates: Lessons from year one of IAPT. *Behaviour Research and Therapy, 51*(9), 597–606. doi:10.1016/j.brat.2013.06.004

Haaga, D. A. F. (2000). Introduction to the special section on stepped care models in psychotherapy. *Journal of consulting and clinical psychology, 68*(4), 547–548. doi:https://doi.org/10.1037/0022-006X.68.4.547

Haarhoff, B., & Williams, M. W. (2017). Low intensity Psychological interventions in Aotearoa: What can we learn from IAPT? *New Zealand Journal of Psychology, 46*(2).

Haitana, T., Pitama, S., Cormack, D., Clarke, M., & Lacey, C. (2020). The Transformative Potential of Kaupapa Māori Research and Indigenous Methodologies: Positioning Māori Patient Experiences of Mental Health Services. *International Journal of Qualitative Methods, 19*, 1–12. doi:10.1177/1609406920953752

Hallas, R. C. (2014). *Narratives of clients' experiences of cognitive-behaviour therapy [Doctoral thesis, Massey University].* Albany, New Zealand. Retrieved from http://hdl.handle.net/10179/6384

Hamaker, E. L., & Klugkist, I. (2011). Bayesian estimation of multilevel models. In J. J. Hox & J. K. Roberts (Eds.), *Handbook of advanced multilevel analysis* (pp. 145–170). New York, NY: Routledge.

Hanson, K., Webb, T. L., Sheeran, P., & Turpin, G. (2016). Attitudes and preferences towards self-help treatments for depression in comparison to psychotherapy and antidepressant medication. *Behavioural and Cognitive Psychotherapy, 44*(2), 129–139. doi:10.1017/S1352465815000041

Hasin, D. S., Sarvet, A. L., Meyers, J. L., Saha, T. D., Ruan, W. J., Stohl, M., & Grant, B. F. (2018). Epidemiology of adult DSM-5 major depressive disorder and its specifiers in the United States. *JAMA Psychiatry, 75*(4), 336–346. doi:10.1001/jamapsychiatry.2017.4602

Hayes, A. M., Laurenceau, J.-P., Feldman, G., Strauss, J. L., & Cardaciotto, L. (2007). Change is not always linear: The study of nonlinear and discontinuous patterns of change in psychotherapy. *Clinical Psychology Review, 27*(6), 715–723. doi:https://doi.org/10.1016/j.cpr.2007.01.008

Hays, P. A., & Iwamasa, G. Y. (2006). *Culturally responsive cognitive-behavioral therapy: Assessment, practice, and supervision*: American Psychological Association.

Health and Disability Commissioner. (2018a). *Annual report for the year ended 30 June 2018*. Retrieved from https://www.hdc.org.nz/media/5043/hdc-annual-report-2018.pdf

Health and Disability Commissioner. (2018b). *New Zealand's Mental Health and Addiction Services: The Monitoring and Advocacy Report of the Mental Health Commissioner*. Retrieved from https://www.hdc.org.nz/media/4688/mental-health-commissioners-monitoring-and-advocacy-report-2018.pdf

Heck, R. H., Thomas, S. L., & Tabata, L. N. (2021). *Multilevel and longitudinal modeling with IBM SPSS* (Third edition. ed.): Routledge.

Herbert, A. M. L. (2001). *Whanau whakapakari: A Māori-centred approach to child rearing and parent-training programmes [Doctoral thesis, The University of Waikato].* Hamilton, New Zealand. Retrieved from https://hdl.handle.net/10289/2470

Hill, R. S. (2010). *Maori and the State: Crown–Maori Relations in New Zealand/Aotearoa, 1950–2000*. Wellington, New Zealand: Victoria University Press.

Himle, J. A., Fischer, D. J., Muroff, J. R., Van Etten, M. L., Lokers, L. M., Abelson, J. L., & Hanna, G. L. (2006). Videoconferencing-based cognitive-behavioral therapy for

obsessive-compulsive disorder. *Behaviour Research and Therapy, 44*(12), 1821–1829. doi:10.1016/j.brat.2005.12.010

Hirini, P. (1997). Counselling Maori clients: He whakawhiti nga whakarro i te tangata whaiora Maori. *New Zealand Journal of Psychology, 26*(2), 13–18. Retrieved from https://www.psychology.org.nz/journal-archive/NZJP-Vol262-1997-2-Hirini.pdf

Hirini, P. R., & Collings, S. C. D. (2005). *Whakamomori, He Whakaaro, He Kōrero Noa: A collection of contemporary views on Māori suicide*. (0478283792). Wellington, New Zealand: Ministry of Health. Retrieved from https://www.moh.govt.nz/notebook/nbbooks.nsf/0/8D88934B6EF76BEDCC25721800705A50/$file/whakamomori-viewsonmaoriandsuicide.pdf

Hirschfeld, R. M. A. (2001). The comorbidity of major depression and anxiety disorders: Recognition and management in primary care. *Primary Care Companion to the Journal of Clinical Psychiatry, 3*(6), 244–254. doi:10.4088/pcc.v03n0609

Ho, F. Y.-Y., Yeung, W.-F., Ng, T. H.-Y., & Chan, C. S. (2016). The efficacy and cost-effectiveness of stepped care prevention and treatment for depressive and/or anxiety disorders: A systematic review and meta-analysis. *Scientific Reports, 6*(1), 1–10. doi:10.1038/srep29281

Hobbs, M., Kingham, S., Wiki, J., Marek, L., & Campbell, M. (2021). Unhealthy environments are associated with adverse mental health and psychological distress: Cross-sectional evidence from nationally representative data in New Zealand. *Preventive Medicine, 145*. doi:10.1016/j.ypmed.2020.106416

Hocking, R. R. (1983). *A diagnostic tool for mixed models with applications to negative estimates of variance components.* Paper presented at the Proceedings of the Eighth Annual SAS Users Group International Conference, Cary, NC.

Hoek, W., Schuurmans, J., Koot, H. M., & Cuijpers, P. (2012). Effects of Internet-based guided self-help problem-solving therapy for adolescents with depression and anxiety: A randomized controlled trial. *PLoS One, 7*(8), 1–6. doi:10.1371/journal.pone.0043485

Holdsworth, E., Bowen, E., Brown, S., & Howat, D. (2014). Client engagement in psychotherapeutic treatment and associations with client characteristics, therapist characteristics, and treatment factors. *Clinical Psychology Review, 34*(5), 428–450. doi:10.1016/j.cpr.2014.06.004

Holdsworth, N., Paxton, R., Seidel, S., Thomson, D., & Shrubb, S. (1996). Parallel evaluations of new guidance materials for anxiety and depression in primary care. *Journal of Mental Health, 5*(2), 195–208. doi:10.1080/09638239650037081

Hollon, S. D. (2016). The efficacy and acceptability of psychological interventions for depression: Where we are now and where we are going. *Epidemiology and Psychiatric Sciences, 25*(4), 295–300. doi:10.1017/S2045796015000748

Hollon, S. D., & Kendall, P. C. (1980). Cognitive self-statements in depression: Development of an automatic thoughts questionnaire. *Cognitive Therapy and Research, 4*(4), 383–395. doi:10.1017/S2045796015000748

Houkamau, C. A., & Sibley, C. G. (2010). The multi-dimensional model of Māori identity and cultural engagement. *New Zealand Journal of Psychology, 39*(1), 8–28. doi:10.1037/a0031113

Hox, J. J., Moerbeek, M., & Van de Schoot, R. (2017). *Multilevel analysis: Techniques and applications (Third Edition)*. New York, NY: Routledge.

Hoyle, R. H., & Gottfredson, N. C. (2015). Sample size considerations in prevention research applications of multilevel modeling and structural equation modeling. *Prevention Science, 16*(7), 987–996. doi:10.1007/s11121-014-0489-8

Huey, S. J., & Tilley, J. L. (2018). Effects of mental health interventions with Asian Americans: A review and meta-analysis. *Journal of Consulting and Clinical Psychology, 86*(11), 915–930. doi:10.1037/ccp0000346

Hwang, W.-C., Myers, H. F., Chiu, E., Mak, E., Butner, J. E., Fujimoto, K., . . . Miranda, J. (2015). Culturally adapted cognitive-behavioral therapy for Chinese Americans with depression: A randomized controlled trial. *Psychiatric Services, 66*(10), 1035–1042. doi:10.1176/appi.ps.201400358

IBM Corp. (Released 2020). *IBM SPSS Statistics for Windows, Version 27.0*. Retrieved from https://www.hearne.software/SPSS-Grad-Pack-Selection-v27

Ilardi, S. S., & Craighead, W. E. (1994). The role of nonspecific factors in cognitive-behavior therapy for depression. *Clinical Psychology: Science and Practice, 1*(2), 138–156. doi:https://doi.org/10.1111/j.1468-2850.1994.tb00016.x

Interian, A., & Díaz-Martínez, A. M. (2007). Considerations for culturally competent cognitive-behavioral therapy for depression with Hispanic patients. *Cognitive and*

Behavioral Practice, 14(1), 84–97. doi:https://doi.org/10.1016/j.cbpra.2006.01.006

IsHak, W. W., Balayan, K., Bresee, C., Greenberg, J. M., Fakhry, H., Christensen, S., & Rapaport, M. H. (2013). A descriptive analysis of quality of life using patient-reported measures in major depressive disorder in a naturalistic outpatient setting. *Quality of Life Research, 22*(3), 585–596. doi:10.1007/s11136-012-0187-6

Jenkins-Guarnieri, M. A., Pruitt, L. D., Luxton, D. D., & Johnson, K. (2015). Patient perceptions of telemental health: Systematic review of direct comparisons to in-person psychotherapeutic treatments. *Telemedicine and e-Health, 21*(8), 652–660. doi:10.1089/tmj.2014.0165

Jha, M. K., Minhajuddin, A., Thase, M. E., & Jarrett, R. B. (2014). Improvement in self-reported quality of life with cognitive therapy for recurrent major depressive disorder. *Journal of Affective Disorders, 167*, 37-43.

Johansson, R., & Andersson, G. (2012). Internet-based psychological treatments for depression. *Expert Review of Neurotherapeutics, 12*(7), 861–870. doi:https://doi.org/10.1586/ern.12.63

Judd, L. L., Rapaport, M. H., Paulus, M. P., & Brown, J. L. (1993). What is subsyndromal symptomatic depression (SSD)? In A. Beigel, J. J. Lopex Ibor, & J. A. Costa e Silva (Eds.), *Past, Present and Future of Psychiatry: (Vol. 1)* (pp. 295–299). River Edge, NJ: World Scientific Publishing Co.

Kalibatseva, Z., & Leong, F. T. L. (2014). A critical review of culturally sensitive treatments for depression: Recommendations for intervention and research. *Psychological Services, 11*(4), 433–450. doi:10.1037/a0036047

Kaltenthaler, E., Parry, G., Beverley, C., & Ferriter, M. (2008). Computerised cognitive-behavioural therapy for depression: Systematic review. *The British Journal of Psychiatry, 193*(3), 181–184. doi:10.1192/bjp.bp.106.025981

Karyotaki, E., Kleiboer, A., Smit, F., Turner, D. T., Pastor, A. M., Andersson, G., . . . Carlbring, P. (2015). Predictors of treatment dropout in self-guided web-based interventions for depression: An 'individual patient data'meta-analysis. *Psychological Medicine, 45*(13), 2717–2726. doi:10.1017/S0033291715000665

Kaur, M. (2016). Application of mixed method approach in public health research. *Indian journal of Community Medicine: Official Publication of Indian Association of Preventive & Social Medicine, 41*(2), 93–97. doi:10.4103/0970-0218.173495

Kavanagh, D. J., & Proctor, D. M. (2011). The role of assisted self-help in services for alcohol-related disorders. *Addictive Behaviors, 36*(6), 624–629. doi:https://doi.org/10.1016/j.addbeh.2010.11.012

Kazantzis, N., Dattilio, F. M., Cummins, A., & Clayton, X. (2014). Homework assignments and self-monitoring. In S. G. Hoftmann, D. J. A. Dozois, R. Winfried, & J. A. J. Smits (Eds.), *The Wiley handbook of cognitive behavioural therapy* (pp. 311–330). New York, NY: Wiley Blackwell.

Kazantzis, N., Whittington, C., & Dattilio, F. (2010). Meta-analysis of homework effects in cognitive and behavioral therapy: A replication and extension. *Clinical Psychology: Science and Practice, 17*(2), 144–156. doi:https://doi.org/10.1111/j.1468-2850.2010.01204.x

Kendrick, T., & Collinson, S. (2022). Antidepressants and the serotonin hypothesis of depression. *British Medical Journal, 378*(8351). doi:https://doi.org/10.1136/bmj.o1993

Kendrick, T., Pilling, S., Mavranezouli, I., Megnin-Viggars, O., Ruane, C., Eadon, H., & Kapur, N. (2022). Management of depression in adults: Summary of updated NICE guidance depression in adults: Discussing first line treatments. *British Medical Journal, 378*(8347). doi:10.1136/bmj.o1557

Kennerley, H., Kirk, J., & Westbrook, D. (2016). *An introduction to cognitive behaviour therapy: Skills and applications*. Thousand Oaks, CA: Sage Publication Ltd.

Kenwright, M., Liness, S., & Marks, I. (2001). Reducing demands on clinicians by offering computer-aided self-help for phobia/panic: Feasibility study. *British Journal of Psychiatry, 179*(5), 456–459. doi:10.1192/bjp.179.5.456

Kessler, R. C., Zhao, S., Blazer, D. G., & Swartz, M. (1997). Prevalence, correlates, and course of minor depression and major depression in the national comorbidity survey. *Journal of Affective disorders, 45*(1-2), 19–30. doi:10.1016/s0165-0327(97)00056-6

King, V. L., Stoller, K. B., Kidorf, M., Kindbom, K., Hursh, S., Brady, T., & Brooner, R. K. (2009). Assessing the effectiveness of an Internet-based videoconferencing

platform for delivering intensified substance abuse counseling. *Journal of Substance Abuse Treatment, 36*(3), 331–338. doi:10.1016/j.jsat.2008.06.011

Kingi, T. K. R. (2002). *"Hua Oranga": Best health outcomes for Māori [Doctoral thesis, Massey University].* (Doctoral). Wellington, New Zealand. Retrieved from http://hdl.handle.net/10179/2079

Kingi, T. K. R. (2005). *Māori health, Māori research, and Māori mental health outcomes*. Paper presented at the Hui Whakapiripiri, Christchurch, New Zealand. http://www.masseyuniversity.co.nz/massey/fms/Te%20Mata%20O%20Te%20Tau/Publications%20-%20Te%20Kani/HTML%20Charcode.pdf

Kingi, T. K. R., & Durie, M. (2000). *"Hua Oranga": A Māori measure of mental health outcomes: a report/prepared for the Ministry of Health*. Retrieved from http://hdl.handle.net/10179/13358

Kishita, N., Takei, Y., & Stewart, I. (2017). A meta-analysis of third wave mindfulness-based cognitive behavioral therapies for older people. *International Journal of Geriatric Psychiatry, 32*(12), 1352–1361. doi:10.1002/gps.4621

Klein, D. N. (2010). Chronic depression: Diagnosis and classification. *Current Directions in Psychological Science, 19*(2), 96–100. doi:https://doi.org/10.1177/0963721410366007

Kohn, L. P., Oden, T., Muñoz, R. F., Robinson, A., & Leavitt, D. (2002). Brief report: Adapted cognitive behavioral group therapy for depressed low-income African American women. *Community Mental Health Journal, 38*(6), 497–504. doi:10.1023/a:1020884202677

Koivu, B., Drummond, A., Battersby, M., & Cromarty, P. (2016). Large reductions in depression and anxiety via low-intensity cognitive behavioural therapy delivered by novice coach. *Australian & New Zealand Journal of Psychiatry, 50*(6), 602–602. doi:10.1177/0004867415624971

Kraus, C., Kadriu, B., Lanzenberger, R., Zarate Jr, C. A., & Kasper, S. (2019). Prognosis and improved outcomes in major depression: A review. *Translational psychiatry, 9*(1), 1–17. doi:10.1038/s41398-019-0460-3

Krebber, A.-M. H., Jansen, F., Witte, B., Cuijpers, P., de Bree, R., Becker-Commissaris, A., . . . Beekman, A. (2016). Stepped care targeting psychological distress in head

and neck cancer and lung cancer patients: A randomized, controlled trial. *Annals of Oncology, 27*(9), 1754–1760. doi:10.1093/annonc/mdw230

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*(9), 606–613. doi:10.1046/j.1525-1497.2001.016009606.x

Kroenke, K., Spitzer, R. L., Williams, J. B., & Löwe, B. (2010). The patient health questionnaire somatic, anxiety, and depressive symptom scales: A systematic review. *General Hospital Psychiatry, 32*(4), 345–359. doi:10.1016/j.genhosppsych.2010.03.006

Krupnick, J. L., Sotsky, S. M., Elkin, I., Simmens, S., Moyer, J., Watkins, J., & Pilkonis, P. A. (2006). The role of the therapeutic alliance in psychotherapy and pharmacotherapy outcome: Findings in the national institute of mental health treatment of depression collaborative research program. *Focus, 64*(2), 532–277. doi:https://doi.org/10.1176/foc.4.2.269

Krynen, A., Osbourne, D., Duck, I. M., Hokamau, C. A., & Sibley, C. G. (2013). Measuring psychological distress in New Zealand: Item response properties and demographic differences in the Kessler-6 screening measure. *New Zealand Journal of Psychology, 42*(2), 69–83.

Kuosmanen, T., Fleming, T. M., Newell, J., & Barry, M. M. (2017). A pilot evaluation of the SPARX-R gaming intervention for preventing depression and improving wellbeing among adolescents in alternative education. *Internet Interventions, 8*, 40–47. doi:10.1016/j.invent.2017.03.004

Kupfer, D. J., Frank, E., & Perel, J. M. (1989). The advantage of early treatment intervention in recurrent depression. *Archives of General Psychiatry, 46*(9), 771–775. doi:https://doi.org/10.1001/archpsyc.1989.01810090013002

Kürümlüoğlugil, R., & Tanrıverdi, D. (2021). The effects of the psychoeducation on cognitive distortions, negative automatic thoughts and dysfunctional attitudes of patients diagnosed with depression. *Psychology, Health & Medicine, 27*(10), 2085–2095. doi:10.1080/13548506.2021.1944654

Kwok, O.-M., Underhill, A. T., Berry, J. W., Luo, W., Elliott, T. R., & Yoon, M. (2008). Analyzing longitudinal data with multilevel models: An example with individuals

living with lower extremity intra-articular fractures. *Rehabilitation Psychology, 53*(3), 370–386. doi:https://doi.org/10.1037/a0012765

Lambert, M. J. (2013). Outcome in psychotherapy: The past and important advances. *Psychotherapy (Chic), 50*(1), 42–51. doi:10.1037/a0030682

Larsen, D. L., Attkisson, C. C., Hargreaves, W. A., & Nguyen, T. D. (1979). Assessment of client/patient satisfaction: Development of a general scale. *Evaluation and Program Planning, 2*(3), 197–207. doi:10.1016/0149-7189(79)90094-6

Lau, M. A., & Davis, S. (2019). Evaluation of a cognitive behavior therapy program for BC primary care patients with mild to moderate depression with or without anxiety: Bounce Back, 2008-2014. *British Columbia Medical Journal, 61*(1), 25–32. Retrieved from https://bcmj.org/sites/default/files/public/BCMJ_Vol61_No1-Bounce-Back.pdf

Lawler, K., Earley, C., Timulak, L., Enrique, A., & Richards, D. (2021). Dropout from an internet-delivered cognitive behavioral therapy intervention for adults with depression and anxiety: Qualitative study. *JMIR Formative Research, 5*(11), e26221. doi:10.2196/26221

Lawn, S., Huang, N., Zabeen, S., Smith, D., Battersby, M., Redpath, P., . . . Fairweather-Schmidt, K. (2019). Outcomes of telephone-delivered low-intensity cognitive behaviour therapy (LiCBT) to community dwelling Australians with a recent hospital admission due to depression or anxiety: MindStep™. *BMC Psychiatry, 19*(1), 1–16. doi:10.1186/s12888-018-1987-1

Layard, R., Clark, D., Knapp, M., & Mayraz, G. (2007). Cost-benefit analysis of psychological therapy. *National Institute Economic Review, 202*(1), 90–98. doi:10.1177/0027950107086171

Learmonth, D., & Rai, S. (2008). Taking computerized CBT beyond primary care. *British Journal of Clinical Psychology, 47*(1), 111–118. doi:10.1348/014466507X248599

Lee, K.-C. (2014). *The effectiveness and cultural compatibility of a guided self-help cognitive-behaviour programme for Asian students in New Zealand [Master's thesis, Massey University].* Albany, New Zealand. Retrieved from https://mro.massey.ac.nz/bitstream/handle/10179/5951/01_front.pdf

Lemmens, L. H. J. M., Arntz, A., Peeters, F. P. M. L., Hollon, S. D., Roefs, A., & Huibers, M. J. H. (2015). Clinical effectiveness of cognitive therapy v. interpersonal

psychotherapy for depression: Results of a randomized controlled trial. *Psychological Medicine, 45*(10), 2095–2110. doi:10.1017/S0033291715000033

Lewinsohn, P. M., Solomon, A., Seeley, J. R., & Zeiss, A. (2000). Clinical implications of “subthreshold" depressive symptoms. *Journal of Abnormal Psychology, 109*(2), 345–351. doi:https://doi.org/10.1037/0021-843X.109.2.345

Lewis, G. (2016). *Validating the CORE-10 as a mental health screening tool for prisoners [Doctoral thesis, Cardiff University].* Cardiff, South Wales. Retrieved from https://orca.cardiff.ac.uk/id/eprint/95008/1/REMOVED%203rd%20PARTY%20FINAL%20VERSION.pdf

Linardon, J., Fitzsimmons-Craft, E. E., Brennan, L., Barillaro, M., & Wilfley, D. E. (2019). Dropout from interpersonal psychotherapy for mental health disorders: A systematic review and meta-analysis. *Psychotherapy Research, 29*(7), 870–881. doi:10.1080/10503307.2018.1497215

Listug-Lunde, L., Vogeltanz-Holm, N., & Collins, J. (2013). A cognitive-behavioral treatment for depression in rural American Indian middle school students. *American Indian Alaska Native Mental Health Research, 20*(1), 16–34. doi:10.5820/aian.2001.2013.16

Living Life to the Full. (2022). About CBT. Retrieved from https://llttf.com/about-cbt/

Lopes, R. T., Meyer, B., Berger, T., & Svacina, M. A. (2020). Effectiveness of an internet-based self-guided program to treat depression in a sample of Brazilian users: A study protocol. *Brazilian Journal of Psychiatry, 42*(3), 322–328. doi:10.1590/1516-4446-2019-0582

Lopez, J. E., Rees, M., & Castro, M. (2014). Are low-intensity CBT interventions effective and meaningful for the Latino community in the UK? *International Journal of Culture and Mental Health, 7*(4), 410–425. doi:https://doi.org/10.1080/17542863.2013.836237

Lovell, K., Cox, D., Haddock, G., Jones, C., Raines, D., Garvey, R., . . . Hadley, S. (2006). Telephone administered cognitive behaviour therapy for treatment of obsessive compulsive disorder: Randomised controlled non-inferiority trial. *British Medical Journal, 333*(7574), 883–888. doi:10.1136/bmj.38940.355602.80

Lovell, K., & Richards, D. (2000). Multiple access points and levels of entry (MAPLE): Ensuring choice, accessibility and equity for CBT services. *Behavioural and Cognitive Psychotherapy, 28*(4), 379–391. doi:10.1017/S1352465800004070

Löwe, B., Unützer, J., Callahan, C. M., Perkins, A. J., & Kroenke, K. (2004). Monitoring depression treatment outcomes with the patient health questionnaire-9. *Medical Care, 42*(12), 1194–1201. Retrieved from http://www.jstor.org/stable/4640875

Lucassen, M. F. G., Merry, S. N., Hatcher, S., & Frampton, C. M. A. (2015). Rainbow SPARX: A novel approach to addressing depression in sexual minority youth. *Cognitive and Behavioral Practice, 22*(2), 203–216. doi:https://doi.org/10.1016/j.cbpra.2013.12.008

Ludman, E. J., Simon, G. E., Tutty, S., & Von Korff, M. (2007). A randomized trial of telephone psychotherapy and pharmacotherapy for depression: Continuation and durability of effects. *Journal of consulting and clinical psychology, 75*(2), 257–266. doi:10.1037/0022-006X.75.2.257

Maas, C. J., & Hox, J. J. (2005). Sufficient sample sizes for multilevel modeling. *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences, 1*(3), 86.

Maas, C. J. M., & Hox, J. J. (2004). The influence of violations of assumptions on multilevel parameter estimates and their standard errors. *Computational Statistics & Data Analysis, 46*(3), 427–440. doi:10.1016/j.csda.2003.08.006

MacGregor, A. D., Hayward, L., Peck, D. F., & Wilkes, P. (2009). Empirically grounded clinical interventions clients' and referrers' perceptions of computer-guided CBT (FearFighter). *Behavioural and Cognitive Psychotherapy, 37*(1), 1–9. doi:10.1017/S135246580800492X

MacQueen, K. M., Guest, G., Namey, E. E. (2012). *Applied Thematic Analysis*. Thousand Oaks, CA: SAGE Publications Inc.

Malpass, A., Shaw, A., Kessler, D., & Sharp, D. (2010). Concordance between PHQ-9 scores and patients' experiences of depression: A mixed methods study. *British Journal of General Practice, 60*(575), 231–238. doi:10.3399/bjgp10X502119

Manage My Health. (2022a). Provider Resources. Retrieved from https://beatingtheblues.co.nz/provider-resources/

Mane, J. (2009). Kaupapa Māori: A community approach. *MAI Review, 3*(1), 1–9. Retrieved from http://www.review.mai.ac.nz/mrindex/MR/article/download/243/243-1710-1-PB.pdf

Manea, L., Gilbody, S., & McMillan, D. (2012). Optimal cut-off score for diagnosing depression with the Patient Health Questionnaire (PHQ-9): A meta-analysis. *Canadian Medical Association Journal, 184*(3), 191–196. doi:10.1503/cmaj.110829

Māori Health Authority. (2022). *Ā mātou mahi: Our work and priorities*. Retrieved from https://www.teakawhaiora.nz/our-work/

Marrinan, T., & Papworth, M. (Eds.). (2018). *Low intensity cognitive behaviour therapy: A practitioner's guide (2nd ed.)*. London, UK: Sage Publications Ltd.

Marrs, R. W. (1995). A meta-analysis of bibliotherapy studies. *American Journal of Community Psychology, 23*(6), 843–870. doi:10.1007/BF02507018

Martinez, R., Whitfield, G., Dafters, R., & Williams, C. (2008). Can people read self-help manuals for depression? A challenge for the stepped care model and book prescription schemes. *Behavioural and Cognitive Psychotherapy, 36*(1), 89–97. doi:https://doi.org/10.1017/S1352465807004067

Martyn, J. (2017). *Group guided low intensity self-help for community dwelling older adults experiencing low mood [Doctoral dissertation, Massey University].* Albany, New Zealand. Retrieved from http://hdl.handle.net/10179/13188

Matatini, T. R. (2015). Kaupapa Māori Mental Health and Addiction Services: Best Practice Framework. In: Te Rau Matatini Wellington.

Mathieson, F., Mihaere, K., Collings, S., Dowell, A., & Stanley, J. (2012). Maori cultural adaptation of a brief mental health intervention in primary care. *Journal of Primary Health Care, 4*(3), 231–238. Retrieved from https://www.publish.csiro.au/hc/pdf/hc12231

McClay, C.-A., Morrison, J., McConnachie, A., & Williams, C. (2013). A community-based group-guided self-help intervention for low mood and stress: Study protocol for a randomized controlled trial. *Trials, 14*(392), 1–9. doi:https://doi.org/10.1186/1745-6215-14-392

McClintock, K. K., Mellsop, G. W., & Kingi, T. K. R. (2011). Development of a culturally attuned psychiatric outcome measure for an indigenous population. *International Journal of Culture and Mental Health, 4*(2), 128–143. doi:https://doi.org/10.1080/17542863.2010.537484

McCusker, J., Cole, M. G., Yaffe, M., Strumpf, E., Sewitch, M., Sussman, T., . . . Belzile, E. (2016). Adherence to a depression self-care intervention among primary care patients with chronic physical conditions: A randomised controlled trial. *Health Education Journal, 75*(7), 767–779. doi:https://doi.org/10.1177/0017896915622515

McDonald, J. D., Gonzalez, J., & Sargent, E. (2019). Cognitive behavior therapy with American Indians. In G. Y. Iwamasa & P. A. Hays (Eds.), *Culturally responsive behavior therapy: Practice and supervision* (pp. 27–51): American Psychological Association.

McHugh, R. K., Whitton, S. W., Peckham, A. D., Welge, J. A., & Otto, M. W. (2013). Patient preference for psychological vs pharmacologic treatment of psychiatric disorders: A meta-analytic review. *The Journal of Clinical Psychiatry, 74*(6), 595–602. doi:10.4088/JCP.12r07757

McIntosh, T. (2005). Maori identities: Fixed, fluid, forced. In J. H. Liu, T. McCreanor, T. McIntosh, & T. Teaiwa (Eds.), *New Zealand identities: Departures and destinations* (pp. 38-51). Wellington, New Zealand: Victoria University Press.

McKenna, G., Hevey, D., & Martin, E. (2010). Patients' and providers' perspectives on bibliotherapy in primary care. *Clinical Psychology & Psychotherapy, 17*(6), 497-–409. doi:10.1002/cpp.679

McLachlan, A. (2022). *Whāngaihia te hua o oranga ki ō tatou whānau whānui: Ko te tikanga o te whakamahinga o Hua Oranga*. Retrieved from https://www.oradatabase.co.nz/files/hua_oranga_manual.pdf

McQueen, D., & Smith, P. j. (2015). NICE recommendations for psychotherapy in depression: Of limited clinical utility. *Psychiatriki, 26*(3), 18–197. Retrieved from https://www.psychiatriki-journal.gr/documents/psychiatry/26.3-EN-2015-188.pdf

Menchola, M., Arkowitz, H. S., & Burke, B. L. (2007). Efficacy of self-administered treatments for depression and anxiety. *Professional Psychology: Research and Practice, 38*(4), 421–429. doi:10.1037/0735-7028.38.4.421

Méndez-Bustos, P., Calati, R., Rubio-Ramírez, F., Olié, E., Courtet, P., & Lopez-Castroman, J. (2019). Effectiveness of psychotherapy on suicidal risk: A systematic review of observational studies. *Frontiers in Psychology, 10*(277), 1–10. doi:10.3389/fpsyg.2019.00277

Merry, S. N., Stasiak, K., Shepherd, M., Frampton, C., Fleming, T., & Lucassen, M. F. G. (2012). The effectiveness of SPARX, a computerised self help intervention for adolescents seeking help for depression: Randomised controlled non-inferiority trial. *British Medical Journal, 344*, 1–16. doi:https://doi.org/10.1136/bmj.e2598

Meuldijk, D., & Wuthrich, V. M. (2019). Stepped-care treatment of anxiety and depression in older adults: A narrative review. *Australian Journal of Rural Health, 27*(4), 275–280. doi:10.1111/ajr.12524

Middleton, H., Shaw, I., Hull, S., & Feder, G. (2005). NICE guidelines for the management of depression. *British Medical Journal, 330*(7486), 267-268. doi:10.1136/bmj.330.7486.267

Ministry of Business Innovation and Employment, & Ministry of Heath. (2017). *New Zealand health research strategy 2017–2027*. Retrieved from Wellington, New Zealand: https://www.health.govt.nz/publication/new-zealand-health-research-strategy-2017-2027

Ministry of Health. (2012). *Rising to the challenge: The mental health and addiction service development plan 2012–2017*. Retrieved from https://www.health.govt.nz/system/files/documents/publications/rising-to-the-challenge-mental-health-addiction-service-development-plan-v2.pdf

Ministry of Health. (2016). *New Zealand health strategy: Roadmap of actions 2016*. Retrieved from https://www.health.govt.nz/system/files/documents/publications/new-zealand-health-strategy-roadmapofactions-2016-apr16.pdf

Ministry of Health. (2017). *Briefing to the Incoming Minister of Health, 2017: The New Zealand Health and Disability System*. Retrieved from https://www.health.govt.nz/system/files/documents/publications/briefing-to-

the-incoming-minister-of-health-2017-the-new-zealand-health-and-disability-system_0.pdf

Ministry of Health. (2018). *Neighbourhood deprivation*. Retrieved from https://www.health.govt.nz/our-work/populations/maori-health/tatau-kahukura-maori-health-statistics/nga-awe-o-te-hauora-socioeconomic-determinants-health/neighbourhood-deprivation

Ministry of Health. (2019). *Annual data explorer 2018/19: New Zealand health survey*. Retrieved from https://minhealthnz.shinyapps.io/nz-health-survey-2020-21-annual-data-explorer/

Ministry of Health. (2021a). *Annual data exporer 2020/21: New Zealand Health Survey*. Retrieved from https://minhealthnz.shinyapps.io/nz-health-survey-2020-21-annual-data-explorer/

Ministry of Health. (2021b). *Indicator: Depression*. Retrieved from https://minhealthnz.shinyapps.io/nz-health-survey-2020-21-annual-data-explorer/_w_dff4f31b/#!/explore-indicators

Ministry of Health. (2021c). *Indicator: Mental health*. Retrieved from https://minhealthnz.shinyapps.io/nz-health-survey-2020-21-annual-data-explorer/_w_dff4f31b/#!/explore-indicators

Ministry of Health. (2021d). *Indicator: Psychological distress*. Retrieved from https://minhealthnz.shinyapps.io/nz-health-survey-2020-21-annual-data-explorer/_w_dff4f31b/#!/explore-indicators

Ministry of Health. (2021e). *Indicator: Depression; Subgroup comparison for selected indicator*. Retrieved from https://minhealthnz.shinyapps.io/nz-health-survey-2020-21-annual-data-explorer/_w_dff4f31b/#!/explore-indicators

Ministry of Health. (2021f). *Indicator: Depression preverlence*. Retrieved from https://minhealthnz.shinyapps.io/nz-health-survey-2020-21-annual-data-explorer/_w_dff4f31b/#!/explore-indicators

Ministry of Health. (2021g). Indicator: Anxiety disorder overview. Retrieved from https://minhealthnz.shinyapps.io/nz-health-survey-2020-21-annual-data-explorer/_w_dff4f31b/#!/explore-indicators

Ministry of Health. (2021h). Indicator: Anxiety disorder subgroup comparison. Retrieved from https://minhealthnz.shinyapps.io/nz-health-survey-2020-21-annual-data-explorer/_w_dff4f31b/#!/explore-indicators

Ministry of Health. (2022). Specialist mental health and addiction services: Increasing availability of focused supports. Retrieved from https://www.beehive.govt.nz/sites/default/files/2022-05/Specialist%20Mental%20Health%20Services.pdf

Miranda, J., Green, B. L., Krupnick, J. L., Chung, J., Siddique, J., Belin, T., & Revicki, D. (2006). One-year outcomes of a randomized clinical trial treating depression in low-income minority women. *Journal of Consulting and Clinical Psychology, 74*(1), 99–111. doi:10.1037/0022-006X.74.1.99

Moberg, C., Niles, A., & Beermann, D. (2019). Guided self-help works: Randomized waitlist controlled trial of Pacifica, a mobile app integrating cognitive behavioral therapy and mindfulness for stress, anxiety, and depression. *Journal of Medical Internet Research, 21*(6), 1–17. doi:10.2196/12556

Moerbeek, M., Van Breukelen, G. J. P., & Berger, M. P. F. (2001). Optimal experimental designs for multilevel models with covariates. *Communications in Statistics: Theory and Methods, 30*(11), 2683–2697. doi:https://doi.org/10.1081/STA-100108453

Mohr, D. C., Vella, L., Hart, S., Heckman, T., & Simon, G. (2008). The effect of telephone-administered psychotherapy on symptoms of depression and attrition: A meta-analysis. *Clinical Psychology (New York), 15*(3), 243–253. doi:10.1111/j.1468-2850.2008.00134.x

Mojtabai, R., Chen, L.-Y., Kaufmann, C. N., & Crum, R. M. (2014). Comparing barriers to mental health treatment and substance use disorder treatment among individuals with comorbid major depression and substance use disorders. *Journal of Substance Abuse Treatment, 46*(2), 268–273. doi:10.1016/j.jsat.2013.07.012

Moldovan, R., Cobeanu, O., & David, D. (2013). Cognitive bibliotherapy for mild depressive symptomatology: Randomized clinical trial of efficacy and mechanisms of change. *Clinical Psychology & Psychotherapy, 20*(6), 482–493. doi:10.1002/cpp.1814

Moncrieff, J., Cooper, R. E., Stockmann, T., Amendola, S., Hengartner, M. P., & Horowitz, M. A. (2022). The serotonin theory of depression: A systematic umbrella review of the evidence. *Molecular Psychiatry*, 1–14. doi:https://doi.org/10.1038/s41380-022-01661-0

Montagu, A. (2015). *Investigating the effectiveness and nature of change in low-intensity CBT: guided self-help for individuals with low mood in New Zealand [Doctoral dissertation, Massey University].* Albany, New Zealand. Retrieved from http://hdl.handle.net/10179/7905

Montagu, A., & Williams, M. W. M. (2017). Help yourself to CBT: Investigating clinically significant change in a low intensity programme. *New Zealand Journal of Psychology, 46*(2), 35. Retrieved from https://www.psychology.org.nz/journal-archive/Help-yourself-to-CBT.pdf

Morgan, C., Mason, E., Newby, J. M., Mahoney, A. E., Hobbs, M. J., McAloon, J., & Andrews, G. (2017). The effectiveness of unguided internet cognitive behavioural therapy for mixed anxiety and depression. *Internet Interventions, 10*, 47–53. doi:https://doi.org/10.1016/j.invent.2017.10.003

Moriarty, A. S., Gilbody, S., McMillan, D., & Manea, L. (2015). Screening and case finding for major depressive disorder using the Patient Health Questionnaire (PHQ-9): A meta-analysis. *General Hospital Psychiatry, 37*(6), 567–576. doi:10.1016/j.genhosppsych.2015.06.012

Mueller, T. I., Leon, A. C., Keller, M. B., Solomon, D. A., Endicott, J., Coryell, W., . . . Maser, J. D. (1999). Recurrence after recovery from major depressive disorder during 15 years of observational follow-up. *American Journal of Psychiatry, 156*(7), 1000–1006. doi:10.1176/ajp.156.7.1000

Mukuria, C., Brazier, J., Barkham, M., Connell, J., Hardy, G., Hutten, R., . . . Parry, G. (2013). Cost-effectiveness of an improving access to psychological therapies service. *The British Journal of Psychiatry, 202*(3), 220–227. doi:10.1192/bjp.bp.111.107888

Munder, T., Flückiger, C., Leichsenring, F., Abbass, A. A., Hilsenroth, M. J., Luyten, P., . . . Wampold, B. E. (2019). Is psychotherapy effective? A re-analysis of treatments for depression. *Epidemiology and Psychiatric Sciences, 28*(3), 268–274. doi:10.1017/S2045796018000355

Muriwai, E. M., Houkamau, C. A., & Sibley, C. G. (2015). Culture as cure? The protective function of Māori cultural efficacy on psychological distress. *44*(2), 14–24. Retrieved from https://www.psychology.org.nz/journal-archive/72176-NZJP-Vol-44-No-2_Maori-Cultural.pdf

National Collaborating Centre for Mental Health. (2010). *Depression: The treatment and management of depression in adults (Updated edition)*. Leicester, UK: British Psychological Society.

National Collaborating Centre for Mental Health. (2011). *Common mental health disorders: identification and pathways to care*. Retrieved from https://www.nice.org.uk/guidance/cg123/evidence/full-guideline-181771741

National Collaborating Centre For Mental Health. (2021a). *The improving access to psychological therapies manual*. Retrieved from https://www.england.nhs.uk/wp-content/uploads/2018/06/the-iapt-manual-v5.pdf

National Collaborating Centre for Mental Health. (2021b). *The improving access to psychological therapies manual.* Retrieved from https://www.england.nhs.uk/wp-content/uploads/2018/06/the-iapt-manual-v5.pdf

National Health Service. (2018). *Stepped Care Model*. Retrieved from http://www.humber.nhs.uk/Downloads/Services/IAPTER/Stepped-Care-Model.pdf

National Health Service England. (2015). *Improving access to psychological therapies (IAPT) waiting times guidance and FAQ's*. Retrieved from https://ppn.nhs.uk/attachments/article/572/iapt_wait_times_guide.pdf

Nelson, A., Ayers, E., Sun, F., & Zhang, A. (2020). Culturally adapted psychotherapeutic interventions for Latino depression and anxiety: A meta-analysis. *Research on Social Work Practice, 30*(4), 368–381. doi:10.1177/1049731519899991

New Zealand Government. (2022). *Pae Ora (Healthy Futures) Act 2022*. Retrieved from https://www.legislation.govt.nz/act/public/2022/0030/latest/versions.aspx

New Zealand Psychologists Board. (2012). *The Practice of Telepsychology*. Retrieved from https://psychologistsboard.org.nz/wp-

content/uploads/2021/06/BPG_The_Practice_of_Telepsychology_FINAL_131212.pdf

Nguyen, T. D., Attkisson, C. C., & Stegner, B. L. (1983). Assessment of patient satisfaction: Development and refinement of a service evaluation questionnaire. *Evaluation and Program Planning, 6*(3-4), 299–313. doi:10.1016/0149-7189(83)90010-1

NICE. (2009). Depression in adults: Recognition and management. Retrieved from https://www.nice.org.uk/guidance/cg90

NICE. (2022). *Depression in adults: Discussing first-line treatments for less severe depression*. Retrieved from https://www.nice.org.uk/guidance/ng222/resources/discussing-firstline-treatments-for-less-severe-depression-pdf-11131007006

Norcross, J. C., & Lambert, M. J. (2018). Psychotherapy relationships that work III. *Psychotherapy (Chic), 55*(4), 303–315. doi:10.1037/pst0000193

Nordin, S., Carlbring, P., Cuijpers, P., & Andersson, G. (2010). Expanding the limits of bibliotherapy for panic disorder: Randomized trial of self-help without support but with a clear deadline. *Behavior Therapy, 41*(3), 267–276.

Novotney, A. (2017). A growing wave of online therapy. *Monitor on Psychology, 48*(2). Retrieved from https://www.apa.org/monitor/2017/02/online-therapy

Nutt, D. (2004). Anxiety and depression: Individual entities or two sides of the same coin? *International Journal of Psychiatry in Clinical Practice, 8*, 19–24. doi:10.1080/13651500410005513

O'Mahen, H. A., Hayes, A., Harries, C., Ladwa, A., Mostazir, M., Ekers, D., . . . Wright, K. (2021). A comparison of the effects of sudden gains and depression spikes on short-and long-term depressive symptoms in a randomized controlled trial of behavioral activation and cognitive behavioural therapy. *Journal of Consulting and Clinical Psychology, 89*(12), 957–969. doi:10.1037/ccp0000577

O'Reilly, A., Peiper, N., O'Keeffe, L., Illback, R., & Clayton, R. (2016). Performance of the CORE-10 and YP-CORE measures in a sample of youth engaging with a community mental health service. *International Journal of Methods in Psychiatric Research, 25*(4), 324–332. doi:10.1002/mpr.1500

O'Donohue, W., & Benuto, L. T. (2015). Is culturally sensitive cognitive behavioral therapy an empirically supported treatment?: The case for Hispanics. *International Journal of Psychology and Psychological Therapy, 15*(3), 405–421.

OECD. (2018). *Mental health and work: New Zealand*. Paris, France: OECD Publishing.

Office of the Chief Coroner of New Zealand. (2021). *Chief Coroner releases annual suicide statistics, lanches new web took with Ministry of Health*. Retrieved from https://coronialservices.justice.govt.nz/assets/Uploads/Chief-Coroner-releases-annual-suicide-statistics-launches-new-web-tool-with-Ministry-of-Health2.pdf

Okada, K. (2017). Negative estimate of variance-accounted-for effect size: How often it is obtained, and what happens if it is treated as zero. *Behavior Research Methods, 49*(3), 979–987. doi:10.3758/s13428-016-0760-y

Olfson, M., Mojtabai, R., Sampson, N. A., Hwang, I., Druss, B., Wang, P. S., . . . Kessler, R. C. (2009). Dropout from outpatient mental health care in the United States. *Psychiatric Services, 60*(7), 898–907. doi:10.1176/ps.2009.60.7.898

Organista, K. C., Muñoz, R. F., & González, G. (1994). Cognitive-behavioral therapy for depression in low-income and minority medical outpatients: Description of a program and exploratory analyses. *Cognitive Therapy and Research, 18*(3), 241–259. doi:https://doi.org/10.1007/BF02357778

Osenbach, J. E., O'Brien, K. M., Mishkind, M., & Smolenski, D. J. (2013). Synchronous telehealth technologies in psychotherapy for depression: A meta-analysis. *Depression and Anxiety, 30*(11), 1058–1067. doi:10.1002/da.22165

Pachana, N. A., Byrne, G. J., Siddle, H., Koloski, N., Harley, E., & Arnold, E. (2007). Development and validation of the geriatric anxiety inventory. *International Psychogeriatrics, 19*(1), 103–114. doi:10.1017/S1041610206003504

Palinkas, L. A., Mendon, S. J., & Hamilton, A. B. (2019). Innovations in mixed methods evaluations. *Annual Review of Public Health, 40*, 423–442. doi:10.1146/annurev-publhealth-040218-044215

Palmer, R. L., Birchall, H., McGrain, L., & Sullivan, V. (2002). Self-help for bulimic disorders: A randomised controlled trial comparing minimal guidance with face-to-face or telephone guidance. *The British Journal of Psychiatry, 181*(3), 230–235. doi:10.1192/bjp.181.3.230

Palumbo, P. (2015). *The efficacy of bibliotherapy for social anxiety and depressive symptomology [Mater's thesis, Rowan University].* Glasboro, NJ. Retrieved from https://rdw.rowan.edu/cgi/viewcontent.cgi?article=1344&context=etd

Papworth, M., & Marrinan, T. (Eds.). (2018). *Low intensity cognitive behaviour therapy: A practitioner's guide (2nd ed.)*. London, UK: Sage Publishing Ltd.

Papworth, M., Marrinan, T., Martin, B., Keegan, D., & Chaddock, A. (2013). *Low intensity cognitive behaviour therapy: A practitioner's guide*. London, UK: Sage Publishing Ltd.

Parsonson, B. S., & Stokes, T. F. (2013). Educational and therapeutic use of communications technology: Issues and applications. *Psychology Aotearoa, 5*, 114–118.

Patterson, R., Durie, M., Disley, B., Rangihuna, D., Tiatia-Seath, J., & Tualamali'i, J. (2018). *He Ara Oranga: Report of the government inquiry into mental health and addiction* (0994124538). Retrieved from https://mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf

Peterson, D., Pere, L., Sheehan, N., & Surgenor, G. (2004). *Respect costs nothing: A survey of discrimination faced by people with experience of mental illness in Aotearoa New Zealand: Executive summary*. Retrieved from https://www.researchgate.net/publication/322929922_Respect_costs_nothing_A_survey_of_discrimination_faced_by_people_with_experience_of_mental_illness_in_AotearoaNew_Zealand

PHARMAC. (2022). Number of people by age band dispensed antidepressants from 2016 to 2020. Retrieved from https://pharmac.govt.nz/news-and-resources/official-information-act/official-information-act-responses/number-of-people-by-age-band-dispensed-antidepressants-from-2016-to-2020/?keyword=antidepressants&page=1

Pihama, L. (2001). *Tīhei mauri ora: Honouring our voices: Mana wahine as a kaupapa Māori: Theoretical framework [Doctoral thesis, The University of Auckland].* Auckland, New Zealand. Retrieved from http://hdl.handle.net/2292/1119

Pihama, L., Smith, K., Taki, M., & Lee, J. (2004). *A literature review on kaupapa Maori and Maori education pedagogy: Prepared for ITP New Zealand*. Retrieved from

https://www.academia.edu/7909873/A_LITERATURE_REVIEW_ON_KAUPAPA_MAORI_AND_MAORI_EDUCATION_PEDAGOGY

Pineros-Leano, M., Liechty, J. M., & Piedra, L. M. (2017). Latino immigrants, depressive symptoms, and cognitive behavioral therapy: A systematic review. *Journal of affective disorders, 208*, 567–576. doi:https://doi.org/10.1016/j.jad.2016.10.025

Pohatu, T. W. (2013). Āta: Growing respectful relationships. *Ata: Journal of Psychotherapy Aotearoa New Zealand, 17*(1), 1326. doi:https://doi.org/10.9791/ajpanz.2013.02

Pomare, P. (2015). *He Kākano ahau i ruia mai i Rangiātea e kore ahau e ngaro: Engaging māori in culturally responsive child and adolescent mental health services [Doctoral Thesis, The University of Auckland].* Auckland, New Zealand. Retrieved from http://hdl.handle.net/2292/26748

Ponterotto, J. G., & Ruckdeschel, D. E. (2007). An overview of coefficient alpha and a reliability matrix for estimating adequacy of internal consistency coefficients with psychological research measures. *Perceptual and Motor Skills, 105*(3), 997–1014. doi:10.2466/pms.105.3.997-1014

Proudfoot, J., Goldberg, D., Mann, A., Everitt, B., Marks, I., & Gray, J. A. (2003). Computerized, interactive, multimedia cognitive-behavioural program for anxiety and depression in general practice. *Psychological Medicine, 33*(2), 217–227. doi:10.1017/s0033291702007225

Proudfoot, J., Ryden, C., Everitt, B., Shapiro, D. A., Goldberg, D., Mann, A., . . . Gray, J. A. (2004). Clinical efficacy of computerised cognitive-behavioural therapy for anxiety and depression in primary care: Randomised controlled trial. *The British Journal of Psychiatry, 185*(1), 46–54. doi:10.1192/bjp.185.1.46

Radhakrishnan, M., Hammond, G., Jones, P. B., Watson, A., McMillan-Shields, F., & Lafortune, L. (2013). Cost of improving access to psychological therapies (IAPT) programme: An analysis of cost of session, treatment and recovery in selected primary care trusts in the east of England region. *Behaviour Research and Therapy, 51*(1), 37–45. doi:10.1016/j.brat.2012.10.001

Ramic, E., Prasko, S., Gavran, L., & Spahic, E. (2020). Assessment of the antidepressant side effects occurrence in patients treated in primary care. *Materia Socio Medica, 32*(2), 131–134. doi:10.5455/msm.2020.32.131-134

Rata, A. (2015). The Mäori identity migration model. *Mai Review, 4*(1), 3–14. Retrieved from http://www.journal.mai.ac.nz/sites/default/files/MAIJrnl_V4Iss1_Rata.pdf

Ratajska, A., Zurawski, J., Healy, B., & Glanz, B. I. (2019). Computerized cognitive behavioral therapy for treatment of depression in multiple sclerosis: A narrative review of current findings and future directions. *International Journal of MS Care, 21*(3), 113–123. doi:10.7224/1537-2073.2017-094

Richards, D. A. (2010a). Access and organization: Putting low intensity interventions to work in clinical services. In J. Bennett-Levy, D. Richards, P. Farrand, H. Christensen, K. Griffiths, D. Kavanagh, B. Klein, M. A. Lau, J. Proudfoot, L. Ritterband, J. White, & C. Williams (Eds.), *Oxford guide to low intensity CBT interventions* (pp. 19–34). Oxford, UK: Oxford University Press.

Richards, D. A. (2010b). Low-intensity CBT. In M. Mueller, H. Kennerley, & F. McManus (Eds.), *Oxford guide to surviving as a CBT therapist* (pp. 123–140). Oxford, UK: Oxford University Press Inc.

Richards, D. A., & Farrand, P. (2010). Choosing self-help books wisely: Sorting the wheat from the chaff. In J. Bennett-Levy, D. Richards, P. Farrand, H. Christensen, K. Griffiths, D. Kavanagh, B. Klein, M. A. Lau, J. Proudfoot, L. Ritterband, J. White, & C. Williams (Eds.), *Oxford Guide to Low Intensity CBT Interventions* (pp. 201–208). Oxford, UK: Oxford University Press.

Richards, D. A., & Richardson, T. (2012). Computer-based psychological treatments for depression: A systematic review and meta-analysis. *Clinical Psychology Review, 32*(4), 329–342. doi:10.1016/j.cpr.2012.02.004

Richards, D. A., & Whyte, M. (2011). *Reach out: National programme student materials to support the delivery of training for psychological wellbeing practitioners delivering low intensity interventions (3rd ed.)*. Retrieved from https://cedar.exeter.ac.uk/media/universityofexeter/schoolofpsychology/cedar/documents/Reach_Out_3rd_edition.pdf

Rigabert, A., Motrico, E., Moreno-Peral, P., Resurrección, D. M., Conejo-Cerón, S., Cuijpers, P., . . . Bellón, J. Á. (2020). Effectiveness of online psychological and psychoeducational interventions to prevent depression: Systematic review and meta-analysis of randomized controlled trials. *Clinical Psychology Review, 82*, 1–14. doi:https://doi.org/10.1016/j.cpr.2020.101931

Rihmer, Z. (2001). Can better recognition and treatment of depression reduce suicide rates? A brief review. *European Psychiatry, 16*(7), 406–409. doi:10.1016/s0924-9338(01)00598-3

Rohde, P., Stice, E., Shaw, H., & Brière, F. N. (2014). Indicated cognitive behavioral group depression prevention compared to bibliotherapy and brochure control: Acute effects of an effectiveness trial with adolescents. *Journal of Consulting and Clinical Psychology, 82*(1), 65–74. doi:10.1037/a0034640

Roland, J. E. (2014). *The relationship between the introduction of spirituality and cognitive behavioral therapy in depression recovery in African American Women [Doctoral dissertation, Capella University].* Minneapolis, MN.

Rosenbaum, M., & Ronen, T. (1998). Clinical supervision from the standpoint of cognitive-behavior therapy. *Psychotherapy: Theory, Research, Practice, Training, 35*(2), 220–230. doi:https://doi.org/10.1037/h0087705

Roshanaei-Moghaddam, B., Pauly, M. C., Atkins, D. C., Baldwin, S. A., Stein, M. B., & Roy-Byrne, P. (2011). Relative effects of CBT and pharmacotherapy in depression versus anxiety: Is medication somewhat better for depression, and CBT somewhat better for anxiety? *Depression and Anxiety, 28*(7), 560–567. doi:10.1002/da.20829

Rost, T., Stein, J., Löbner, M., Kersting, A., Luck-Sikorski, C., & Riedel-Heller, S. G. (2017). User acceptance of computerized cognitive behavioral therapy for depression: Systematic review. *Journal of Medical Internet Research, 19*(9), 1–13. doi:10.2196/jmir.7662

Rubin, D. B. (1976). Inference and missing data. *Biometrika, 63*(3), 581–592. doi:10.1093/biomet/63.3.581

Sachdev, P. S. (1990). Whakama: Culturally determined behaviour in the New Zealand Maori. *Psychological Medicine, 20*(2), 433–444. doi:10.1017/S0033291700017748

Sánchez-Ortiz, V. C., Munro, C., Stahl, D., House, J., Startup, H., Treasure, J., . . . Schmidt, U. (2011). A randomized controlled trial of internet-based cognitive-behavioural therapy for bulimia nervosa or related disorders in a student population. *Psychological Medicine, 41*(2), 407–417. doi:10.1017/S0033291710000711

Saunders, R., Buckman, J. E. J., Cape, J., Fearon, P., Leibowitz, J., & Pilling, S. (2019). Trajectories of depression and anxiety symptom change during psychological therapy. *Journal of Affective Disorders, 249*, 327–335. doi:10.1016/j.jad.2019.02.043

Savard, J., Ivers, H., Savard, M.-H., Morin, C. M., Caplette-Gingras, A., Bouchard, S., & Lacroix, G. (2021). Efficacy of a stepped care approach to deliver cognitive-behavioral therapy for insomnia in cancer patients: A noninferiority randomized controlled trial. *Sleep, 44*(11), 1–11. doi:10.1093/sleep/zsab166

Saxon, D., Firth, N., & Barkham, M. (2017). The relationship between therapist effects and therapy delivery factors: Therapy modality, dosage, and non-completion. *Sleep, 44*(5), 705-715. doi:10.1007/s10488-016-0750-5

Schafer, J. L. (1999). Multiple imputation: A primer. *Statistical Methods in Medical Research, 8*(1), 3–15. doi:10.1177/096228029900800102

Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods, 7*(2), 147–177. doi:https://doi.org/10.1037/1082-989X.7.2.147

Schechter, D., Endicott, J., & Nee, J. (2007). Quality of life of normal controls: Association with lifetime history of mental illness. *Psychiatry Research, 152*(1), 45–54. doi:10.1016/j.psychres.2006.09.008

Scheibmair, R. (2010). *The acceptability and effectiveness of computerised cognitive-behavioural self-help for depression in primary care [Doctoral dissertation, Massey University].* Massey University, Albany, New Zealand. Retrieved from http://hdl.handle.net/10179/2193

Schraufnagel, T. J., Wagner, A. W., Miranda, J., & Roy-Byrne, P. P. (2006). Treating minority patients with depression and anxiety: What does the evidence tell us? *General Hospital Psychiatry, 28*(1), 27–36. doi:10.1016/j.genhosppsych.2005.07.002

Schröder, J., Berger, T., Westermann, S., Klein, J. P., & Moritz, S. (2022). Internet interventions for depression: New developments. *Dialogues in Clinical Neuroscience, 18*(2), 203–212. doi:10.31887/DCNS.2016.18.2/jschroeder

Schueller, S. M., Kwasny, M. J., Dear, B. F., Titov, N., & Mohr, D. C. (2015). Cut points on the Patient Health Questionnaire (PHQ-9) that predict response to cognitive–

behavioral treatments for depression. *General Hospital Psychiatry, 37*(5), 470–475. doi:10.1016/j.genhosppsych.2015.05.009

Shandro, A. (2010). *Full of Life: Wellbeing in later years: Learning from practical pilots*. Retrieved from https://www.llttf.com/wp-content/uploads/Full-of-Life-2010-Shandro.pdf

Shapiro, D., Whitfield, G., & Williams, C. J. (2001). An evaluation of a self-help room in a general adult psychiatry service. *Behavioural and Cognitive Psychotherapy, 29*(3), 333–343. Retrieved from https://www.researchgate.net/publication/40711896_An_evaluation_of_a_self-help_room_in_a_general_adult_psychiatry_service

Sharf, J. (2008). Psychotherapy dropout: A meta-analysis of premature termination. *Dissertation Abstracts International, 68*(9-B), 6336. doi:https://doi.org/10.1037/e505942008-001

Shepherd, M. (2011). *An investigation into the design, applicability and evaluation of a computerised cognitive behavioural therapy programme-SPARX for Māori young people experiencing mild to moderate depression [Doctoral thesis, The University of Auckland].* Auckland, New Zealand. Retrieved from http://hdl.handle.net/2292/9900

Shepherd, M., Fleming, T., Lucassen, M., Stasiak, K., Lambie, I., & Merry, S. N. (2015). The design and relevance of a computerized gamified depression therapy program for indigenous Māori adolescents. *JMIR Serious Games, 3*(1), e3804. doi:10.2196/games.3804

Shepherd, M., Merry, S., Lambie, I., & Frampton, C. (2014). *How effective is a computerised self-help programme (SPARX) for Māori adolescents seeking help for depression?* Paper presented at the Medicine 2.0 Conference, Toronto, Canada.

Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York, NY: Oxford University Press.

Smith, G. H. (1990). Research issues related to Māori education. In *The Issues of research and Māori*. Auckland, New Zealand: The University of Auckland.

Smith, G. H. (1997). *The development of kaupapa Maori: Theory and praxis [Doctora thesis, the University of Auckland].* Auckland, New Zealand. Retrieved from http://hdl.handle.net/2292/623

Smith, G. H. (2000). Maori education: Revolution and transformative action. *Canadian Journal of Native Education, 24*(1), 57–72. doi:https://doi.org/10.14288/cjne.v24i1.195881

Smith, J., Newby, J. M., Burston, N., Murphy, M. J., Michael, S., Mackenzie, A., . . . Andrews, G. (2017). Help from home for depression: A randomised controlled trial comparing internet-delivered cognitive behaviour therapy with bibliotherapy for depression. *Internet Interventions, 9*, 25–37. doi:10.1016/j.invent.2017.05.001

Smith, L. T. (1999). *Decolonizing methodologies: Research and indigenous peoples*. Dunedin, New Zealand: University of Otago Press.

Smith, L. T. (2005). Building a research agenda for indigenous epistemologies and education. *Anthropology & Education Quarterly, 36*(1), 93–95. doi:10.1525/aeq.2005.36.1.093

Smith, L. T. (2021). *Decolonizing methodologies: Research and indigenous peoples (3rd ed.)*. London, UK: Zed Books.

Snijders, T. A. B. (2005). Power and sample size in multilevel modeling. *Encyclopedia of Statistics in Behavioral Science, 3*(157), 1573–1580. doi:https://doi.org/10.1002/0470013192.bsa492

Solomon, A., Haaga, D. A., & Arnow, B. A. (2001). Is clinical depression distinct from subthreshold depressive symptoms? A review of the continuity issue in depression research. *The Journal of Nervous and Mental Disease, 189*(8), 498–506. doi:10.1097/00005053-200108000-00002

Soto, A., Smith, T. B., Griner, D., Domenech Rodríguez, M., & Bernal, G. (2018). Cultural adaptations and therapist multicultural competence: Two meta-analytic reviews. *Journal of Clinical Psychology, 74*(11), 1907–1923. doi:10.1002/jclp.22679

Spek, V., Cuijpers, P., Nyklíček, I., Riper, H., Keyzer, J., & Pop, V. (2007). Internet-based cognitive behaviour therapy for symptoms of depression and anxiety: A meta-analysis. *Psychological Medicine, 37*(3), 319–328. doi:10.1017/S0033291706008944

Spielmans, G. I., Berman, M. I., & Usitalo, A. N. (2011). Psychotherapy versus second-generation antidepressants in the treatment of depression: A meta-analysis. *The Journal of Nervous and Mental Disease, 199*(3), 142–149. doi:10.1097/NMD.0b013e31820caefb

Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine, 166*(10), 1092–1097. doi:10.1001/archinte.166.10.1092

Stasiak, K., Hatcher, S., Frampton, C., & Merry, S. N. (2014). A pilot double blind randomized placebo controlled trial of a prototype computer-based cognitive behavioural therapy program for adolescents with symptoms of depression. *Behavioural and Cognitive Psychotherapy, 42*(4), 385–401. doi:10.1017/S1352465812001087

Stats NZ. (2022). *Te reo Māori proficiency and support continues to grow*. Retrieved from https://www.stats.govt.nz/news/te-reo-maori-proficiency-and-support-continues-to-grow/

Steen, S. (2020). A cost-benefit analysis of the improving access to psychological therapies programme using its key defining outcomes. *Journal of Health Psychology, 25*(13-14), 2487–2498. doi:10.1177/1359105318803751

Steinert, C., Hofmann, M., Kruse, J., & Leichsenring, F. (2014). Relapse rates after psychotherapy for depression–stable long-term effects? A meta-analysis. *Journal of Affective Disorders, 168*, 107–118. doi:10.1016/j.jad.2014.06.043

Stevanovic, D. (2011). Quality of life enjoyment and satisfaction questionnaire–short form for quality of life assessments in clinical practice: A psychometric study. *Journal of Psychiatric and Mental Health Nursing, 18*(8), 744–750. doi:10.1111/j.1365-2850.2011.01735.x

Stiles, J. A., Chatterton, M. L., Le, L. K.-D., Lee, Y. Y., Whiteford, H., & Mihalopoulos, C. (2019). The cost-effectiveness of stepped care for the treatment of anxiety disorders in adults: A model-based economic analysis for the Australian setting. *Journal of Psychosomatic Research, 125*, 1–8. doi:10.1016/j.jpsychores.2019.109812

Stone, M. B., Yaseen, Z. S., Miller, B. J., Richardville, K., Kalaria, S. N., & Kirsch, I. (2022). Response to acute monotherapy for major depressive disorder in randomized,

placebo controlled trials submitted to the US Food and Drug Administration: Individual participant data analysis. *British Medical Journal, 378*, 1–9. doi:https://doi.org/10.1136/bmj-2021-067606

Stroup, W., & Littell, R. (2002). *Impact of variance component estimates on fixed effect inference in unbalanced linear mixed models*. Paper presented at the Conference on Applied Statistics in Agriculture. https://doi.org/10.4148/2475-7772.1198

Swift, J. K., Callahan, J. L., Cooper, M., & Parkin, S. R. (2018). The impact of accommodating client preference in psychotherapy: A meta-analysis. *Journal of Clinical Psychology, 74*(11), 1924–1937. doi:10.1002/jclp.22680

Tabachnick, B. G., Ullman, J. B., & Fidell, L. S. (2019). *Using multivariate statistics (7th ed.)* [Online

Non-fiction

Electronic document]. Retrieved from https://ebookcentral.proquest.com/lib/massey/detail.action?docID=5894255.

Taber, K. (2017). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*, 1273–1296. doi:https://doi.org/10.1007/s11165-016-9602-2

Tang, T. Z., & DeRubeis, R. J. (1999). Sudden gains and critical sessions in cognitive-behavioral therapy for depression. *Journal of Consulting and Clinical Psychology, 67*(6), 894–904. doi:10.1037//0022-006x.67.6.894

Te Pou. (2016). Therapy: A guide to evidence-based talking therapies. Retrieved from https://d2ew8vb2gktr0m.cloudfront.net/files/resources/Lets-get-talking-Therapy.pdf

Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. In C. Wilig & W. S. Rogers (Eds.), *The SAGE handbook of qualitative research in psychology (2nd ed.)* (pp. 17–37). London, UK: SAGE Publications Ltd.

Thomas, D. R., Arlidge, B., Arroll, B., & Elder, H. (2010). General practitioners' views about diagnosing and treating depression in Maori and non-Maori patients. *Journal of Primary Health Care, 2*(3), 208–216. doi:10.1071/HC10208

Thompson, M., Parker, H., & Cave, J. (2022). Exploring which aspects of a low-intensity CBT intervention were found to contribute to a successful outcome from the service user point of view: A mixed methods study. *Counselling and*

Psychotherapy Research, 22(2), 279–291. doi:https://doi.org/10.1002/capr.12433

Titov, N. (2007). Status of computerized cognitive behavioural therapy for adults. *Australian & New Zealand Journal of Psychiatry, 41*(2), 95–114. doi:10.1080/00048670601109873

Titov, N., Dear, B. F., McMillan, D., Anderson, T., Zou, J., & Sunderland, M. (2011). Psychometric comparison of the PHQ-9 and BDI-II for measuring response during treatment of depression. *Cognitive Behaviour Therapy, 40*(2), 126–136. doi:10.1080/16506073.2010.550059

Titov, N., Dear, B. F., Staples, L. G., Bennett-Levy, J., Klein, B., Rapee, R. M., . . . Nielssen, O. B. (2017). The first 30 months of the MindSpot clinic: Evaluation of a national e-mental health service against project objectives. *Australian & New Zealand Journal of Psychiatry, 51*(12), 1227–1239. doi:10.1177/0004867416671598

Titov, N., Schofield, C., Staples, L., Dear, B. F., & Nielssen, O. (2019). A comparison of Indigenous and non-Indigenous users of MindSpot: an Australian digital mental health service. *Australas Psychiatry, 27*(4), 352–357. doi:10.1177/1039856218789784

Tolentino, J. C., & Schmidt, S. L. (2018). DSM-5 criteria and depression severity: Implications for clinical practice. *Frontiers in Psychiatry, 9*, Article 450. doi:https://doi.org/10.3389/fpsyt.2018.00450

Tolin, D. F., Diefenbach, G. J., & Gilliam, C. M. (2011). Stepped care versus standard cognitive–behavioral therapy for obsessive–compulsive disorder: A preliminary study of efficacy and costs. *Depression and Anxiety, 28*(4), 314–323. doi:10.1002/da.20804

Tschuschke, V., Koemeda-Lutz, M., von Wyl, A., Crameri, A., & Schulthess, P. (2020). The impact of patients' and therapists' views of the therapeutic alliance on treatment outcome in psychotherapy. *The Journal of Nervous and Mental Disease, 208*(1), 56–64. doi:10.1097/nmd.0000000000001111

Tse, J., LaStella, D., Chow, E., Kingman, E., Pearlman, S., Valeri, L., . . . Dixon, L. B. (2021). Telehealth acceptability and feasibility among people served in a community behavioral health system during the COVID-19 pandemic. *Psychiatric Services, 72*(6), 654–660. doi:10.1176/appi.ps.202000623

Turner, S. (1999). A legacy of colonialism: The uncivil society of Aotearoa/New Zealand. *Cultural Studies, 13*(3), 408–422.

United Nations. (2007). *Declaration on the Rights of Indigenous People*.

Uphoff, E., Pires, M., Barbui, C., Barua, D., Churchill, R., Cristofalo, D., . . . Purgato, M. (2020). Behavioural activation therapy for depression in adults with non–communicable diseases. *Cochrane Database of Systematic Reviews, 8*(8), 1–67. doi:10.1002/14651858.CD013461.pub2

van der Leeden, A. J. M., van Widenfelt, B. M., van der Leeden, R., Liber, J. M., Utens, E. M. W. J., & Treffers, P. D. A. (2011). Stepped care cognitive behavioural therapy for children with anxiety disorders: A new treatment approach. *Behavioural and Cognitive Psychotherapy, 39*(1), 55–75. doi:10.1017/S1352465810000500

Van't Veer-Tazelaar, P., Smit, F., van Hout, H., van Oppen, P., van der Horst, H., Beekman, A., & van Marwijk, H. (2010). Cost-effectiveness of a stepped care intervention to prevent depression and anxiety in late life: Randomised trial. *The British Journal of Psychiatry, 196*(4), 319–325. doi:10.1192/bjp.bp.109.069617

Van‘t Hof, E., Cuijpers, P., & Stein, D. J. (2009). Self-help and Internet-guided interventions in depression and anxiety disorders: A systematic review of meta-analyses. *CNS Spectrums, 14*(S3), 34–40. doi:10.1017/s1092852900027279

Vaz, A. R., Conceição, E., & Machado, P. P. P. (2013). Guided self-help CBT treatment for bulimic disorders: Effectiveness and clinically significant change. *Psychotherapy Research, 23*(3), 324–332. doi:10.1080/10503307.2013.796424

Wagner, B., Horn, A. B., & Maercker, A. (2014). Internet-based versus face-to-face cognitive-behavioral intervention for depression: A randomized controlled non-inferiority trial. *Journal of Affective Disorders, 152*, 113–121. doi:10.1016/j.jad.2013.06.032

Waitangi Tribunal. (2019). Hauora: Report on stage one of the health services and outcomes kaupapa inquiry (Report no. WAI 2575). Retrieved from https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_152801817/Hauora%20W.pdf

Wakefield, S., Kellett, S., Simmonds-Buckley, M., Stockton, D., Bradbury, A., & Delgadillo, J. (2021). Improving access to psychological therapies (IAPT) in the United Kingdom: A systematic review and meta-analysis of 10-years of practice-based

evidence. *British Journal of Clinical Psychology, 60*(1), 1–37. doi:https://doi.org/10.1111/bjc.12259

Walker, S., Eketone, A., & Gibbs, A. (2006). An exploration of kaupapa Maori research, its principles, processes and applications. *International Journal of Social Research Methodology, 9*(4), 331–344. doi:https://doi.org/10.1080/13645570600916049

Wallace, D. D., Carlson, R. G., & Ohrt, J. H. (2021). Culturally adapted cognitive-behavioral therapy in the treatment of panic episodes and depression in an African American woman: A clinical case illustration. *Journal of Mental Health Counseling, 43*(1), 40–58. doi:10.17744/mehc.43.1.03

Ward, E. C., & Brown, R. L. (2015). A culturally adapted depression intervention for African American adults experiencing depression: Oh Happy Day. *Am J Orthopsychiatry, 85*(1), 11-22. doi:10.1037/ort0000027

Ward, E. C., & Brown, R. L. (2015). A culturally adapted depression intervention for African American adults experiencing depression: Oh happy day. *American Journal of Orthopsychiatry, 85*(1), 11–22. doi:10.1037/ort0000027

Weissman, A. N., & Beck, A. T. (1978). *Development and validation of the dysfunctional attitude scale: A preliminary investigation*. Retrieved from https://eric.ed.gov/?id=ED167619

Whitfield, G., Hinshelwood, R., Pashely, A., Campsie, L., & Williams, C. (2006). The impact of a novel computerized CBT CD rom (overcoming depression) offered to patients referred to clinical psychology. *Behavioural and Cognitive Psychotherapy, 34*(1), 1–11. doi:https://doi.org/10.1017/S135246580500250X

Williams, A. D., Clark, T. C., & Lewycka, S. (2018). The associations between cultural identity and mental health outcomes for indigenous Māori youth in New Zealand. *Frontiers in Public Health, 6*, 319–328. doi:https://doi.org/10.3389/fpubh.2018.00319

Williams, C. J. (2003). New technologies in self-help: Another effective way to get better? *European Eating Disorders Review, 11*(3), 170–182. doi:https://doi.org/10.1002/erv.524

Williams, C. J. (2006). *Overcoming Depression and Low Mood: A five areas approach (2nd ed.)*. London, UK: Hodder Arnold.

Williams, C. J. (2009). *Overcoming depression and low mood : A five areas approach* (Fourth edition. ed.). London, UK: Hodder Arnold.

Williams, C. J. (2013). *Five areas resources supporter's guide: Little CBT books*. Retrieved from private communication 22 November 2018

Williams, C. J. (2017). *Living life to the full–For low mood and stress booklets (3rd ed.)*. London, UK: Five Areas Partnership.

Williams, C. J., & Chellingsworth, M. (2010). *CBT: A clinician's guide to using the five areas approach*. Boca Raton, FL: CRC Press.

Williams, C. J., McClay, C.-A., Matthews, L., McConnachie, A., Haig, C., Walker, A., & Morrison, J. (2018). Community-based group guided self-help intervention for low mood and stress: randomised controlled trial. *The British Journal of Psychiatry, 212*(2), 88–95. doi:10.1192/bjp.2017.18

Williams, C. J., & Morrison, J. (2010). A New Language for CBT: New ways of working require new thinking as well as new words. In J. Bennett-Levy, P. Farrand, J. Bennett-Levy, D. Richards, P. Farrand, H. Christensen, K. Griffiths, D. Kavanagh, B. Klein, M. A. Lau, J. Proudfoot, L. Ritterband, J. White, & C. Williams (Eds.), *Oxford guide to low intensity CBT interventions* (pp. 69–84).

Williams, C. J., Taylor, L., Aubin, S. D., Harkin, P. J. R., & Cottrell, D. (2002). *Overcoming Depression: A five areas approach self-help package*. Leeds, UK: Calipso/University of Leeds.

Williams, C. J., & Whitfield, G. (2001). Written and computer-based self-help treatments for depression. *British Medical Bulletin, 57*(1), 133–144. doi:10.1093/bmb/57.1.133

Williams, C. J., Wilson, P., Morrison, J., McMahon, A., Andrew, W., Allan, L., . . . Tansey, L. (2013). Guided self-help cognitive behavioural therapy for depression in primary care: A randomised controlled trial. *PLoS One, 8*(1), 1–7. doi:10.1371/journal.pone.0052735

Williams, J. (2000). *The nature of the Māori community*. Paper presented at the PSSM conference, New Zealand State Services Commission, Wellington, New Zealand.

Williams, M. W., Haarhoff, B., & Vertongen, R. (2017). Mental health in Aotearoa New Zealand: Rising to the challenge of the fourth wave? *New Zealand Journal of*

Psychology, 46(2), 1–7. Retrieved from https://www.psychology.org.nz/journal-archive/Rising-to-the-challenge-of-the-fourth-wave.pdf

Windle, E., Tee, H., Sabitova, A., Jovanovic, N., Priebe, S., & Carr, C. (2020). Association of patient treatment preference with dropout and clinical outcomes in adult psychosocial mental health interventions: A systematic review and meta-analysis. *JAMA Psychiatry, 77*(3), 294–302. doi:10.1001/jamapsychiatry.2019.3750

Wolpe, J. (1968). Psychotherapy by reciprocal inhibition. *Conditional reflex : A Pavlovian journal of research & therapy, 3*(4), 234–240. doi:10.1007/BF03000093

Wood, S. M., Pickel, J., Phillips, A. W., Baber, K., Chuo, J., Maleki, P., . . . Dowshen, N. (2021). Acceptability, feasibility, and quality of telehealth for adolescent health care delivery during the COVID-19 pandemic: Cross-sectional study of patient and family experiences. *JMIR Pediatrics and Parenting, 4*(4), 1–12. doi:10.2196/32708

World Federation for Mental Health. (2012). *Depression: A global crisis: World mental health day, October 10 2012*. Retrieved from https://www.wfmh.org/2012DOCS/WMHDay%202012%20SMALL%20FILE%20FINAL.pdf

World Health Assembly 65. (2012). *Global burden of mental disorders and the need for a comprehensive, coordinated response from health and social sectors at the country level*. Retrieved from https://apps.who.int/iris/handle/10665/78898

World Health Organisation. (2013). *Mental health action plan: 2013–2020*. Retrieved from https://www.who.int/publications/i/item/9789241506021

World Health Organisation. (2016). Investing in treatment for depression and anxiety leads to fourfold return. Retrieved from http://www.who.int/mediacentre/news/releases/2016/depression-anxiety-treatment/en/

World Health Organisation. (2017). Depression and other mental health disorder: Global health estimates. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/254610/WHO-MSD-MER-2017.2-eng.pdf

World Health Organisation. (2021a). Depression. Retrieved from https://www.who.int/news-room/fact-sheets/detail/depression#:~:text=Depression%20is%20a%20leading%20cause,%2C%20moderate%2C%20and%20severe%20depression.

World Health Organisation. (2021b). *Comprehensive mental health action plan 2013–2030* (9240031022). Retrieved from https://www.who.int/publications/i/item/9789240031029

Wright, J. H. (2006). Cognitive behavior therapy: Basic principles and recent advances. *Focus, 4*(2), 173–178. doi:https://doi.org/10.1176/foc.4.2.173

Wright, J. H., Wright, A. S., Albano, A. M., Basco, M. R., Goldsmith, L. J., Raffield, T., & Otto, M. W. (2005). Computer-assisted cognitive therapy for depression: Maintaining efficacy while reducing therapist time. *American Journal of Psychiatry, 162*(6), 1158–1164. doi:10.1176/appi.ajp.162.6.1158

Wu, Z., & Fang, Y. (2014). Comorbidity of depressive and anxiety disorders: Challenges in diagnosis and assessment. *Shanghai Archives of Psychiatry, 26*(4), 227–231. doi:10.3969/j.issn.1002-0829.2014.04.006

Wuthrich, V. M., Rapee, R. M., McLellan, L., Wignall, A., Jagiello, T., Norberg, M., & Belcher, J. (2021). Acceptability and feasibility of stepped-care for anxious adolescents in community mental health services: A secondary analysis. *Child Psychiatry & Human Development*, 1–9. doi:10.1007/s10578-021-01291-7

Yan, C., Rittenbach, K., Souri, S., & Silverstone, P. H. (2019). Cost-effectiveness analysis of a randomized study of depression treatment options in primary care suggests stepped-care treatment may have economic benefits. *BMC psychiatry, 19*(1), 1–13. doi:10.1186/s12888-019-2223-3

Yuan, S., Zhou, X., Zhang, Y., Zhang, H., Pu, J., Yang, L., . . . Xie, P. (2018). Comparative efficacy and acceptability of bibliotherapy for depression and anxiety disorders in children and adolescents: A meta-analysis of randomized clinical trials. *Neuropsychiatric Disease and Treatment, 14*, 353–365. doi:10.2147/NDT.S152747

Yuen, E. K., Herbert, J. D., Forman, E. M., Goetter, E. M., Juarascio, A. S., Rabin, S., . . . Bouchard, S. (2013). Acceptance based behavior therapy for social anxiety

disorder through videoconferencing. *Journal of Anxiety Disorders, 27*(4), 389–397. doi:10.1016/j.janxdis.2013.03.002

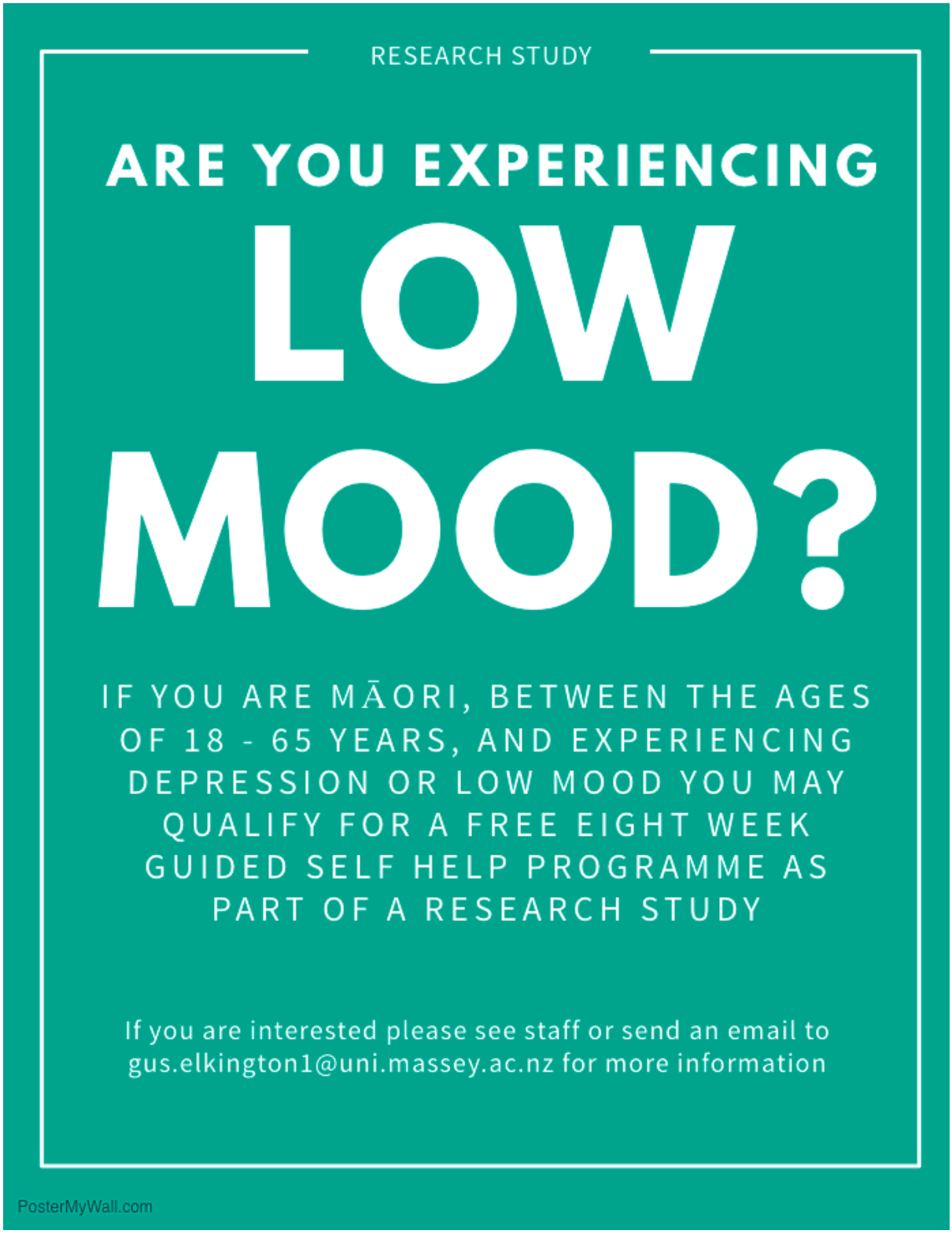
Zhou, X., Teng, T., Zhang, Y., Del Giovane, C., Furukawa, T. A., Weisz, J. R., . . . Xie, P. (2020). Comparative efficacy and acceptability of antidepressants, psychotherapies, and their combination for acute treatment of children and adolescents with depressive disorder: A systematic review and network meta-analysis. *Lancet Psychiatry, 7*(7), 581–601. doi:10.1016/s2215-0366(20)30137-1

Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavica, 67*(6), 361–370. doi:10.1111/j.1600-0447.1983.tb09716.x

APPENDICES

Appendix A

Figure A-1. *Recruitment Advertisement Posted on Social Media Websites*



Appendix B

Document B-1. *Screening and Demographic Questionnaire Provided to Prospective Participants*

Screening Questionnaire

Instructions: *The information you provide in this questionnaire helps the research team to identify whether you meet criteria for the free, Living Life to the Full course. All information provided will be kept confidential, private, and secure. Please answer as best you can:*

Gender: _____

Age: _____

Iwi: _____

Hapū: _____

What is your current employment status?

- ☐ Unemployed
- ☐ Employed full-time
- ☐ Employed part-time
- ☐ Retired
- ☐ Other (please specify): _____

Email address: _____
Phone Number: _____
Postal Address: _____

Currently, the available programme is only for individuals aged between 18 and 65 years of age.

Are you between 18 and 65 years old?

- ☐ Yes
- ☐ No

Please Specify Age: _____

Would you be confident taking part in a programme which is conducted in English, and is largely reading and writing based?

- ☐ Yes
- ☐ No

Which of the following would most accurately describe your living situation?

- ☐ Live with spouse only
- ☐ Live with husband/wife and other family
- ☐ Live with friends or acquaintances without any family
- ☐ Live alone

Health Information:

The 'Living Life to the Full' programme is suitable for those experiencing a wide range of life

circumstances. However, for the purposes of the current study, we would like to know if you are currently, or have recently been experiencing low mood?

☐ Yes
☐ No

Are you currently taking any prescribed medication for low mood or anxiety (please tick the box of the answer that best applies)?

☐ Yes
☐ No
If yes, please specify_____

Have you ever been to the doctor regarding an addiction or psychological/mental health difficulty?

☐ Yes
☐ No
If yes, please specify_____

Are you currently receiving mental health support (i.e., counselling, cognitive behaviour therapy, or other) for any mental health or addiction problem?

☐ Yes
☐ No
If yes, please specify_____

Has your doctor or anyone else ever expressed any serious concerns about your cognitive or mental functioning?

☐ Yes
☐ No
If yes, please specify_____

Safety Information:
It is important that we make sure that you and the other participants remain safe throughout this programme with regards to harm to yourself (e.g., self-harm) or harm to others. Do you think either of these safety concerns will be a problem for you throughout the programme?

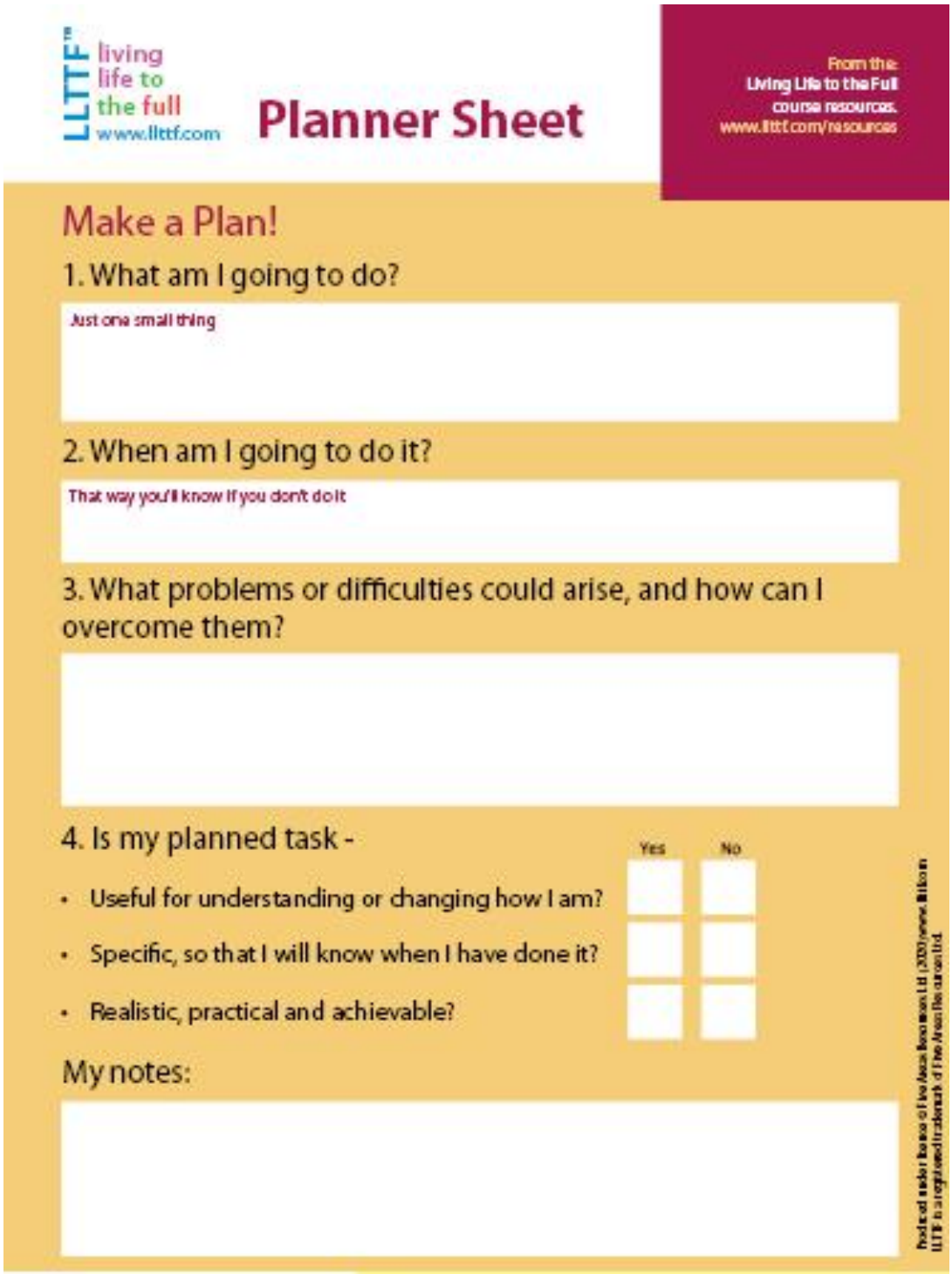
☐ Yes
☐ No

Please check to see if you missed any questions, then place these answers as well as your signed Consent Form into the prepaid envelope and mail it at your earliest convenience. Otherwise, please contact us about any questions using our contact details

Ngā mihi kia a koe

Appendix C

Figure C-1. *LLTTF Planner Sheet Used During Follow Up Sessions*



LLTTF living life to the full www.lltf.com

Planner Sheet

From the: Living Life to the Full course resources. www.lltf.com/resources

Make a Plan!

1. What am I going to do?

Just one small thing

2. When am I going to do it?

That way you'll know if you don't do it

3. What problems or difficulties could arise, and how can I overcome them?

4. Is my planned task -

	Yes	No
• Useful for understanding or changing how I am?		
• Specific, so that I will know when I have done it?		
• Realistic, practical and achievable?		

My notes:

Appendix D

Figure D-1. *LLTTF Review Sheet Used During Follow Up Sessions*

LLTTF living life to the full www.llttf.com

Review Sheet

From the Living Life to the Full course resources. www.llttf.com/resources

How did it go?

What did you plan to do?

Did you try to do it? Yes ☐ No ☐

If yes:

What went well?

What didn't go so well?

What have you learned from what happened?

How are you going to apply what you have learned?

If no:

What stopped you?

External things: (other people, work or home issues etc.)

Internal things: (forgot, not enough time, put it off, didn't think I could do it, couldn't see the point etc.).

How can you tackle things differently next time?

Appendix E

Example of outcome measures (PHQ-9, CORE-10, Q-LES-Q-SF) used to track progression for participants over the duration of the study.

Document E-1. ***PHQ-9 Psychometric Measure for Low Mood***

Patient Health Questionnaire (PHQ-9)

Name: _____ Date: _____

Over the last 2 weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things	0	1	2	3
Feeling down, depressed, or hopeless	0	1	2	3
Trouble falling or staying asleep, or sleeping too much	0	1	2	3
Feeling tired or having little energy	0	1	2	3
Poor appetite or overeating	0	1	2	3
Feeling bad about yourself – or that you are a failure or have let yourself or your family down	0	1	2	3
Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

Document E-2. *CORE-10 Psychometric Measure of Psychological Distress*

CLINICAL
OUTCOMES in
ROUTINE
EVALUATION

CORE-10 Screening Measure

Site ID

Client ID

letters only / numbers only

Sub codes

Therapist ID / numbers only (1) / numbers only (2)

Stage Completed
S Screeening
R Referral
A Assessment
F First Therapy Session
P Pre-therapy (unspecified)
D During Therapy
L Last therapy session
X Follow up 1
Y Follow up 2

Episode Stage

Date form given D D / M M / Y Y Y Y

Gender: Male / Female

Age

IMPORTANT - PLEASE READ THIS FIRST

This form has 10 statements about how you have been OVER THE LAST WEEK.
Please read each statement and think how often you felt that way last week.
Then tick the box which is closest to this.
Please use a dark pen (not pencil) and tick clearly within the boxes.

Over the last week...

	Not at all	Only occasionally	Sometimes	Often	Most or all of the time
1 I have felt tense, anxious or nervous	0	1	2	3	4
2 I have felt I have someone to turn to for support when needed	4	3	2	1	0
3 I have felt able to cope when things go wrong	4	3	2	1	0
4 Talking to people has felt too much for me	0	1	2	3	4
5 I have felt panic or terror	0	1	2	3	4
6 I made plans to end my life	0	1	2	3	4
7 I have had difficulty getting to sleep or staying asleep	0	1	2	3	4
8 I have felt despairing or hopeless	0	1	2	3	4
9 I have felt unhappy	0	1	2	3	4
10 Unwanted images or memories have been distressing me	0	1	2	3	4

Total (Clinical Score*)

* **Procedure:** Add together the item scores, then divide by the number of questions completed to get the mean score, then multiply by 10 to get the Clinical Score.
Quick method for the CORE-10 (if all items completed): Add together the item scores to get the Clinical Score.

Thank you for your time in completing this questionnaire

Document E-3. *Q-LES-Q-SF Psychometric Measure of Quality of Life Enjoyment and Satisfaction*

Name: _____ Date: _____

Quality of Life Enjoyment and Satisfaction Questionnaire – Short Form (Q-LES-Q-SF)

Taking everything into consideration, during the past week how satisfied have you been with
your……

	Very Poor	Poor	Fair	Good	Very Good
…..physical health?	1	2	3	4	5
…..mood?	1	2	3	4	5
…..work?	1	2	3	4	5
…..household activities?	1	2	3	4	5
…..social relationships?	1	2	3	4	5
…..family relationships?	1	2	3	4	5
…..leisure time activities?	1	2	3	4	5
…..ability to function in daily life?	1	2	3	4	5
…..sexual drive, interest and/or performance? *	1	2	3	4	5
…..economic status?	1	2	3	4	5
…..living/housing situation?*	1	2	3	4	5
…..ability to get around physically without feeling dizzy or unsteady or falling?*	1	2	3	4	5
…..your vision in terms of ability to do work or hobbies?*	1	2	3	4	5
…..overall sense of wellbeing?	1	2	3	4	5
…..medication? (If not taking any, check here _____ and leave item blank.)	1	2	3	4	5
…..How would you rate your overall life satisfaction and contentment during the past week?	1	2	3	4	5

*If satisfaction is very poor, poor, or fair on these items, please UNDERLINE the factor(s) associated with a lack of satisfaction.

Appendix F

Document F-1. *Research Study Information Sheet*

Low Intensity CBT with Māori

Research Study Information Sheet

Nau mai haere mai, you are invited to take part in research involving individual therapy for Māori experiencing low mood. Please read the following information carefully to ensure you fully understand the nature of the research and your rights should you choose to participate.

What is the study about?

Cognitive Behavioural Therapy or CBT for short, is a talking therapy that emphasises the importance of how you think about yourself, situations, the world and other people. CBT can be effective for helping people who are struggling with mental health disorders such as low mood.

The Living Life to the Full programme is a less intense version of CBT developed in the UK. The programme uses self-help materials with the help of a support worker to identify and change unhelpful thinking and put in place strategies to help overcome difficulties with low mood. Although, research studies have shown it to be effective for other ethnicities it is unknown how effective the Living Life to the Full programme is for Māori experiencing low mood.
The aim of this study is to explore how useful the programme is for Māori at improving low mood, if these changes impact on your quality of life, and if they are maintained over time. I also want to explore what you thought of the programme and how to make it culturally more appropriate.

How will the study benefit you?

One of the main benefits for you is a greater self-awareness of how to deal with issues that may lead to low mood and how to deal with them more effectively. In terms of research benefits, the fulfilment of this study will help to evaluate the effectiveness of the Living Life to the Full programme with Māori in New Zealand, as well as contribute to the attainment of the lead researcher's Doctor of Clinical Psychology degree.

To participate in this research, you must be of:

- Māori descent
- 18 years old or over
- Experiencing at least some low mood
- Basic skills in reading, writing and speaking English

You may not be eligible if you have:

- Current diagnosis for alcohol abuse, substance abuse, psychosis or borderline personality disorder.
- Experiencing very high (severe) symptoms of low mood
- Currently receiving psychotherapy or counselling for low mood or anxiety
- If you are experiencing significant thoughts of self-harm to you or others

Please note:
If screen question responses suggest that you at potential risk of harming yourself or others, the researcher is required to inform your family doctor and or mental health services.

What will you receive?

In addition to the benefits outlined above, this is a free service and there will be no charge involved. As such, there will be no cost and course materials will be provided for free. You will be able to keep any of the materials you are given, so that upon the course completion, or if you are unable to complete the full duration of the course, you will still be able to keep all the provided materials for your own benefit in the future. Finally, those participants who complete the programme will receive a koha of $30 petrol or grocery voucher.

What do you have to do before you can take part?

In order to be eligible for the free low intensity group CBT self-help course, you are required to carefully read this information sheet and the consent form (provided). If you then wish to participate in the study, you should give consent by signing your name on the consent form in the designated area. Once you have completed the consent form, you are asked to read and complete the brief screening questionnaire (provided).

The screening questionnaire will take about five minutes to complete and provides the researcher with general contact information and demographic information about you. It also asks some questions regarding your suitability for the study, as described in the "You may not be eligible if you have" section above. These may take around 15 minutes to complete.

Once you have signed your consent form and completed all questionnaires, you are asked to return these using the pre-paid envelope provided. You may call to discuss any questions you may have concerning the study, the consent form, or any of the questionnaires at any time using the contact details outlined below.

Please note:
The researcher is obligated to ensure you are supported and safe. If the questionnaires identify significant concern, this may require informing your family doctor or mental health service.

What would I have to do?

If you agree to participate you will be asked to complete several brief psychological questionnaires, followed by an eight-week wellbeing course for low mood, called Living Life to the Full. The Programme will be facilitated by a clinical psychology trainee in the Massey University Doctoral programme working under supervision.

- Apart from the initial face-to-face session contact sessions will be via telephone.
- Following the completion of the programme you will be invited to have your say about the programme during a semi structured interview.
- Questionnaires will be completed each week and should take no longer than 5-10 minutes. The follow up sessions are expected to take 15-30 minutes, and these will be completed online.
- Follow-up contact will occur at 6 and 12 weeks after you have completed your programme to help us understand the long-term effects of the low intensity therapy process, and at these times you will be asked to complete 3 brief questionnaires.
- The cost of this programme is free of charge.
- You are invited to participate in a voluntary interview following the completion of the course to give your insights to what you thought about the programme.

What if something goes wrong?

We wish to emphasise that participation in any and all parts of this study is completely voluntary and does not involve any physical activity. However, if you were injured in this study, which is unlikely, you may be eligible for compensation from ACC just as you would be if you were injured in an accident at work or at home. This does not mean that your claim will automatically be accepted. You will have to lodge a claim with ACC, which may take some time to assess. If your claim is accepted, you will receive funding to assist in your recovery. If you have private health or life insurance, you may wish to check with your insurer that taking part in this study won't affect your cover.

Will my information remain confidential?

- Yes. All your information will remain confidential at all times.
- Research data will only be accessed by researchers and clinical supervisors directly related to this study.
- Clinical data will only be available to those involved in your therapy.
- No materials that could personally identify you will be used in any reports on this study.
- All data will be kept in a secure locked cabinet.
- Programme data will be stored in a separate location from the identifying information you provided.

- You will not be personally identifiable in any research publications (e.g. in scientific journals) that result from this research.

Please note:
Any information you supply will only be used for the purpose of the study. All information will be treated confidentially, and subject to the ethical guidelines on the limits of confidentiality provided by the Psychological Society of New Zealand's Code of Ethics, as per the Privacy Act (1993).

Your rights as a participant:

If you choose to take part in the research, you have the right to:

- Withdraw from the study at any time
- Decline to take part in this study, knowing this will not have any impact on what services you receive;
- Decline to answer any particular question;
- Ask any question about the study at any time during participation;
- Be given a summary of the findings of the study once it has been completed if you request it

Important:
Data and information collected during the programme will be removed should you choose to withdraw or are withdrawn due to significant concerns about your health and wellbeing. Also, information can be removed up until the analysis of data.

What happens from here:

After you return your consent form and questionnaires, if you are selected for the study, the programme facilitator (Gus Elkington) who will be running the programme will contact you via telephone. At this time, you will have the opportunity to ask any questions about the study before you agree to continue. While the study hopes to be as inclusive as possible, it is important to note that not everybody who returns the questionnaires and consent form will be invited to participate in the course. If you are not selected to continue with the study, the researchers will make contact informing you of the outcome and to provide information of where to find appropriate resources (used in the study). Any concerns will also be discussed which may include informing your Family Doctor or mental health service of your situation.

Questions or concerns:

Contact me via email if you have additional questions or concerns about this study

Gus.Elkington.1@uni.massey.ac.nz

This study has received ethical approval From HDEC ref # 19/STH/26

Ngā mihi nui

Appendix G

Document G-1. *Participant Consent Form*

MASSEY UNIVERSITY
COLLEGE OF HUMANITIES
AND SOCIAL SCIENCES
TE KURA PŪKENGA TANGATA

Low Intensity CBT with Māori

Participant Consent Form

This consent form will be held for a period of ten (10) years

I have read the information sheet for this study and have had the details explained to me. My questions about the research have been answered to my satisfaction, and I understand that I may ask further questions at any time. I have been given contact details to use in case I have future questions about the study. I have also had the opportunity to use whānau / family support or a friend to help me ask questions and understand the study.

I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the programme at any time. I also understand that I may request that my information and data be removed up until the analysis of data, which will occur eight weeks after commencing the Live Life to the Full programme. I also understand that should my mood raise concerns I may be withdrawn from the study and that the researcher is obligated to inform my Family doctor or mental health service. If this happens all data and information collected will be removed.

I agree to provide information to the researchers and I agree to my sessions being audio recorded for research purposes on the understanding that this will be confidential. The information I supply will only be used for the purpose of the study. All information will be treated confidentially and subject to the ethical guidelines on the limits of confidentiality provided by the Psychological Society of New Zealand's Code of Ethics, as per the Privacy Act (1993).

I have had adequate time to consider whether or not to take part in this study. I agree to participate in this study under the conditions set out in the Information Sheet.

Signature.....Date .....

Full Name (printed) .....

Te Kunenga
ki Pūrehuroa

School of Psychology – Te Kura Hinengaro Tangata
Private Bag 102904, North Shore Mail Centre, Auckland 0745, New Zealand T +64 9 414 0800 extn 41244 F +64 9 414 0831
www.massey.ac.nz

Appendix H

Standardised residual normal P-P plots and standardised residual scatterplots base on residuals for *Model B* (unconditional growth models) for PHQ-9, CORE-10, Q-LES-Q-SF, and successive models (*Model C*^{1}*, Model C*^{2}).

Figure H-1a. *Standardised Residual Normal P-P Plots Based on Residuals for PHQ-9 (Unconditional Growth Models)*

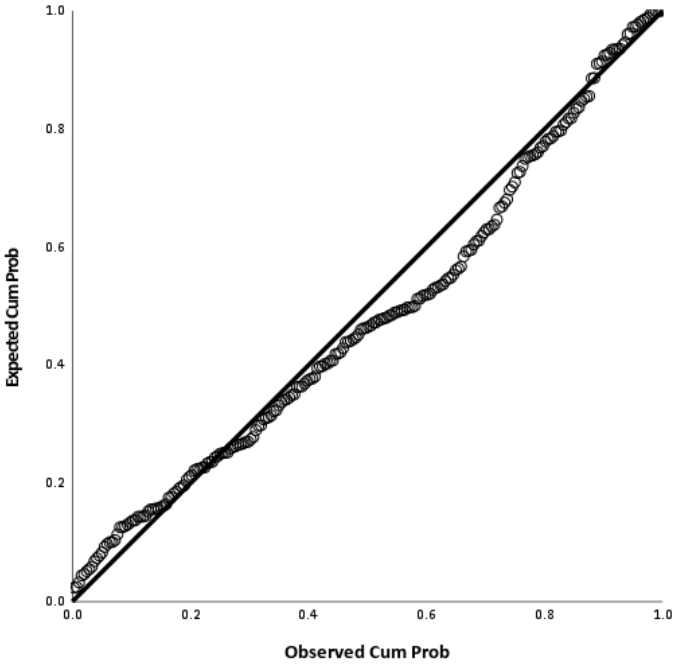


Figure H-1b. *Standardised Residual Scatterplots for PHQ-9 (Unconditional Growth Model)*

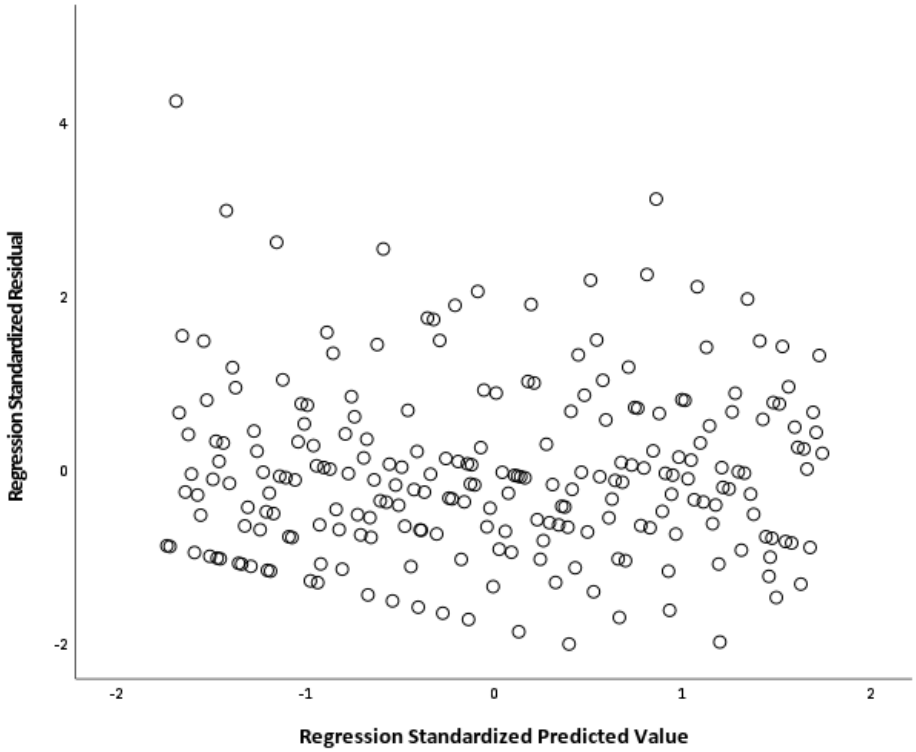


Figure H-2a. *Standardised Residual Normal P-P Plots Based on Residuals for CORE-10 (Unconditional Growth Models)*

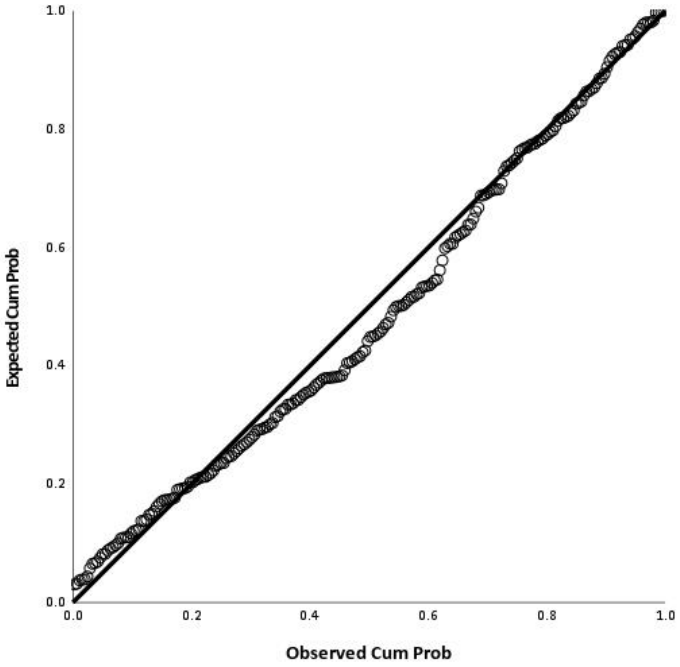


Figure H-2b. *Standardised Residual Scatterplots for Core-10 (Unconditional Growth Model)*

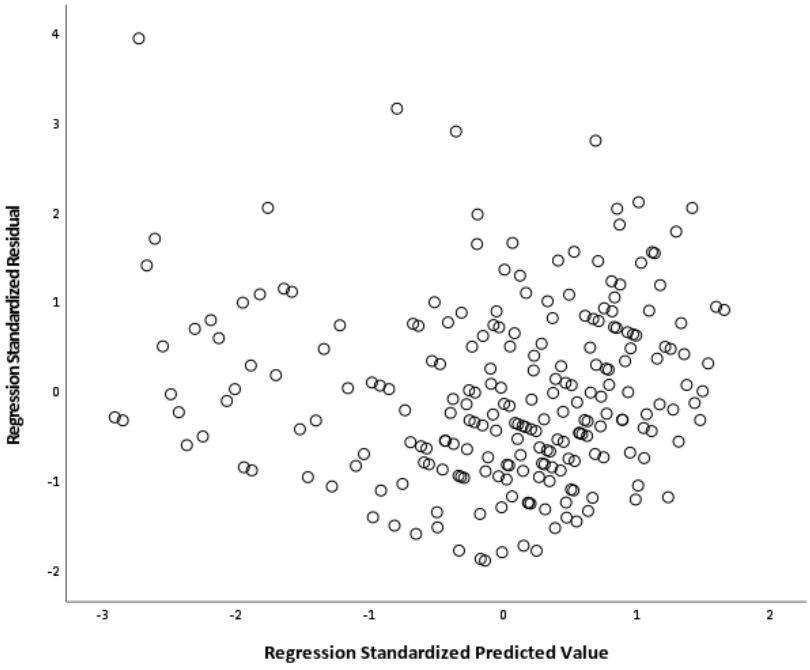


Figure H-3a. *Standardised Residual Normal P-P Plots Base on Residuals for Q-LES-Q-SF (Unconditional Growth Models)*

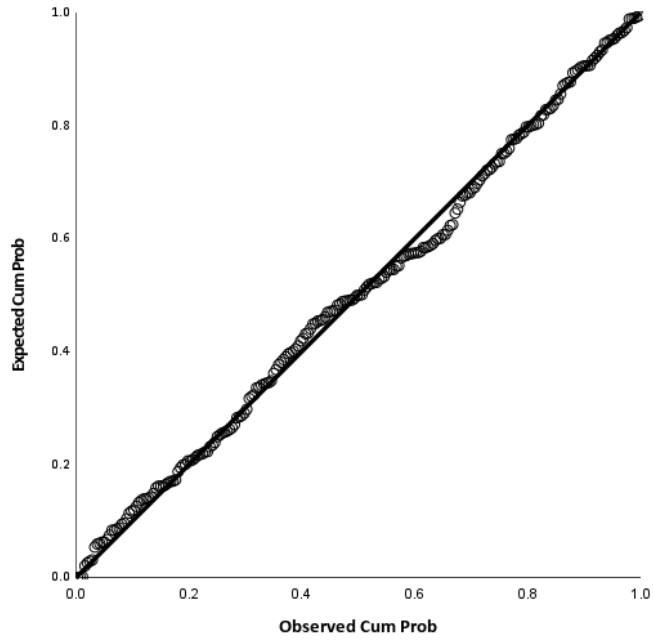


Figure H-3b. *Standardised Residual Scatterplots for Q-LES-Q-SF (Unconditional Growth Model)*

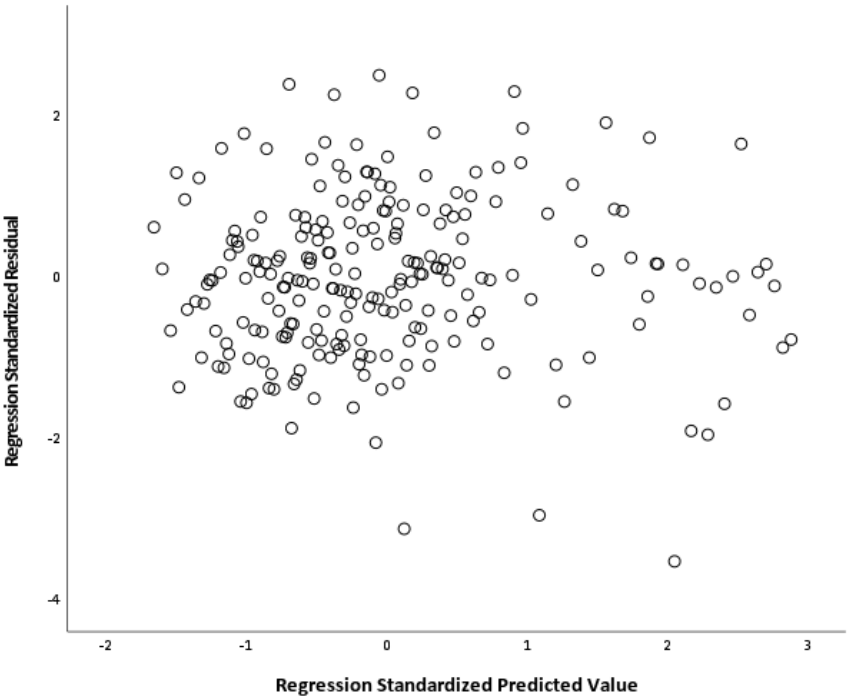


Figure H-4a. *Standardised Residual Normal P-P Plots Based on Residuals for Model C[1]*

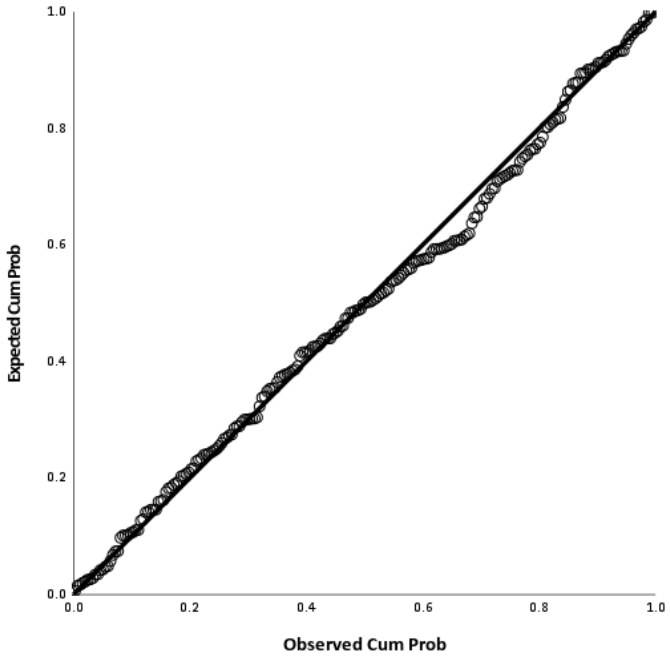


Figure H-4b. *Standardised Residual Scatterplots for Model C[1]*

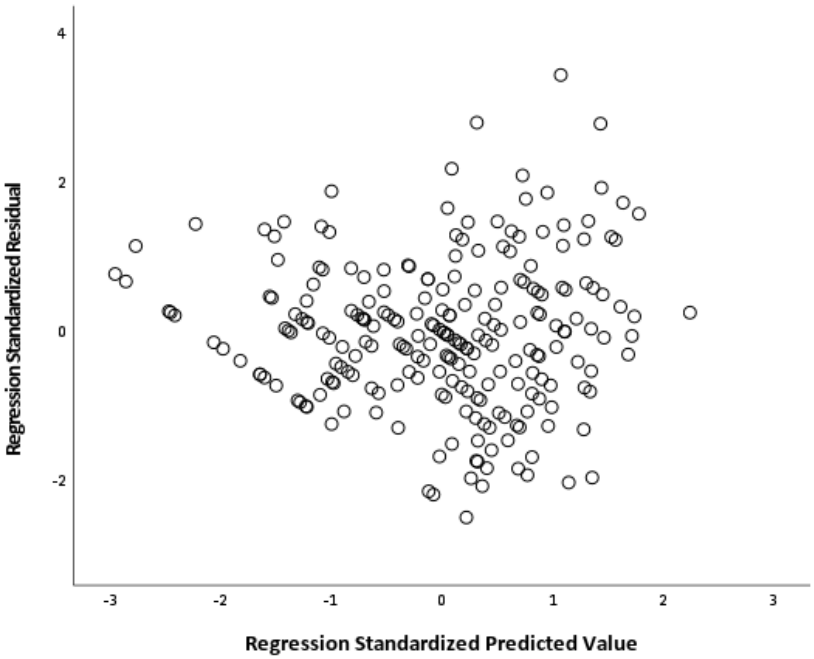


Figure H-5a. *Standardised Residual Normal P-P Plots Based on Residuals for Model C²*

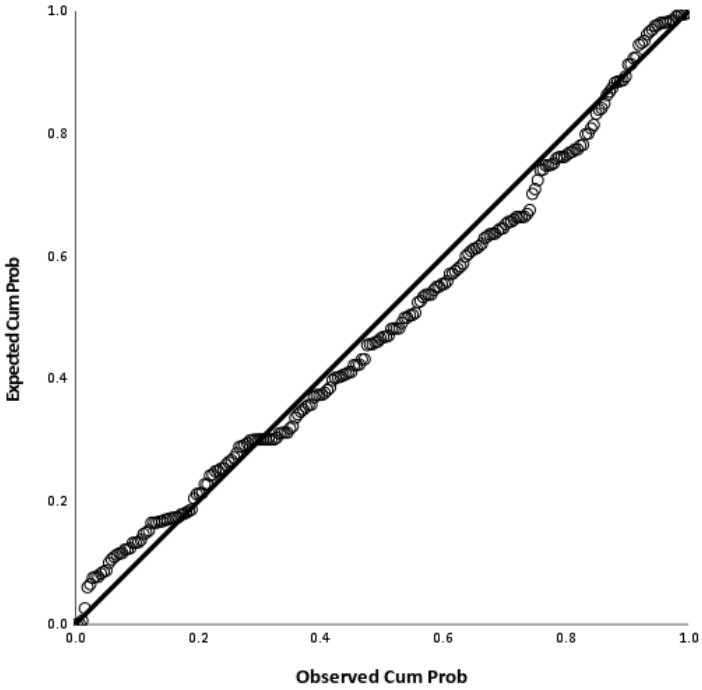
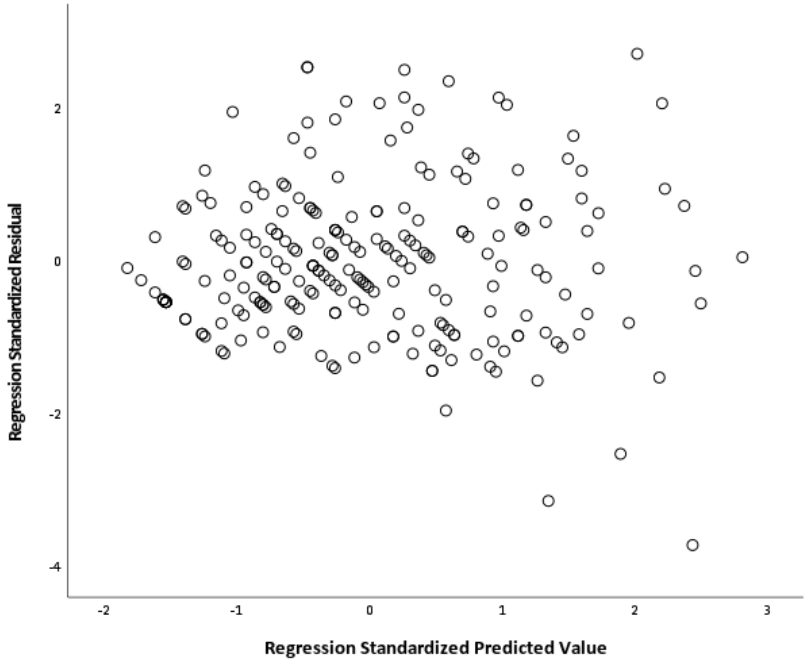


Figure H-5b. S*tandardised Residual Scatterplots for Model C²*



Appendix I

Table I-1. *Results of Little's MCAR Test and Percentage of Missing Data Per Measurement Time Point*

Measurement Time	Completed Questionnaires	Measure	Percentage of Missing Data	Significance
BL1	18	PHQ-9	0%	Not significant
		CORE-10	0%	Not significant
		Q-LES-Q-SF	0%	Not significant
BL2	16	PHQ-9	11%	Not significant
		CORE-10	11%	Not significant
		Q-LES-Q-SF	11%	Not significant
BL3	18	PHQ-9	0%	Not significant
		CORE-10	0%	Not significant
		Q-LES-Q-SF	0%	Not significant
W1	18	PHQ-9	0%	Not significant
		CORE-10	0%	Not significant
		Q-LES-Q-SF	0%	Not significant
W2	18	PHQ-9	0%	Not significant
		CORE-10	0%	Not significant
		Q-LES-Q-SF	0%	Not significant
W3	17	PHQ-9	6%	Not significant
		CORE-10	6%	Not significant
		Q-LES-Q-SF	6%	Not significant
W4	18	PHQ-9	0%	Not significant
		CORE-10	0%	Not significant
		Q-LES-Q-SF	0%	Not significant
W5	18	PHQ-9	0%	Not significant
		CORE-10	0%	Not significant
		Q-LES-Q-SF	0%	Not significant
W6	18	PHQ-9	0%	Not significant
		CORE-10	0%	Not significant
		Q-LES-Q-SF	0%	Not significant
W7	18	PHQ-9	0%	Not significant
		CORE-10	0%	Not significant
		Q-LES-Q-SF	0%	Not significant
W8	18	PHQ-9	0%	Not significant
		CORE-10	0%	Not significant
		Q-LES-Q-SF	0%	Not significant
P6	18	PHQ-9	0%	Not significant
		CORE-10	0%	Not significant
		Q-LES-Q-SF	0%	Not significant
P12	17	PHQ-9	6%	Not significant
		CORE-10	6%	Not significant
		Q-LES-Q-SF	6%	Not significant

Note. BL = Baseline, W = Week, P = Post Programme.

Appendix J

Table J-1. *Results of Pearson Correlation Reliability Analysis for PHQ-9 Across each Time Measurement*

PHQ-9				
Measurement Time	**α**	***M***	**Variance**	***SD***
Baseline 1	.712	12.11	16.693	4.086
Baseline 2	.846	10.81	20.696	4.024
Baseline 3	.754	10.78	15.712	3.964
Week 1	.852	10.61	28.252	5.315
Week 2	.877	9.28	23.977	4.897
Week 3	.813	7.71	17.596	4.195
Week 4	.832	7.22	15.242	3.904
Week 5	.879	7.39	23.193	4.816
Week 6	.822	6.06	18.997	4.359
Week 7	.795	5.83	13.794	3.714
Week 8	.850	5.44	18.614	4.314
Post Programme 6 Weeks	.894	4.39	21.310	4.616
Post Programme 12 Weeks	.929	5.47	32.890	5.735
Average	**.84**	**7.93**	**20.54**	**4.46**

Table J-2. *Results Of Pearson Correlation Reliability Analysis for CORE-10 across each Time Measurement*

CORE-10				
Measurement Time	**α**	***M***	**Variance**	***SD***
Baseline 1	.719	18.94	37.232	6.102
Baseline 2	.766	16.44	32.796	5.727
Baseline 3	.642	17.44	23.556	4.853
Week 1	.848	14.44	47.085	6.862
Week 2	.823	13.72	37.859	6.153
Week 3	.855	11.06	43.684	6.609
Week 4	.606	9.44	15.085	3.884
Week 5	.755	10.39	28.134	5.304
Week 6	.846	10.00	43.412	6.589
Week 7	.765	8.56	22.614	4.755
Week 8	.855	8.72	50.212	7.086
Post Programme 6 Weeks	.850	7.44	34.261	5.853
Post Programme 12 Weeks	.885	6.82	40.404	6.356
Average	**.79**	**11.80**	**35.10**	**5.86**

Table J-3. *Results of Pearson Correlation Reliability Analysis for Q-LES-Q-SF Across Each Time Measurement*

Q-LES-Q-SF				
Measurement Time	**α**	***M***	**Variance**	***SD***
Baseline 1	0.646	43.89	90.575	9.517
Baseline 2	0.849	46.44	157.996	12.570
Baseline 3	0.793	44.61	142.487	11.937
Week 1	0.890	49.17	217.794	14.758
Week 2	0.862	51.00	182.000	13.491
Week 3	0.914	55.65	295.618	17.194
Week 4	0.907	54.67	234.118	15.301
Week 5	0.937	55.17	203.912	14.280
Week 6	0.948	58.67	319.647	17.879
Week 7	0.938	58.50	266.971	16.339
Week 8	0.952	61.78	469.124	21.164
Post Programme 6 Weeks	0.961	67.39	447.899	21.164
Post Programme 12 Weeks	0.964	63.65	450.493	21.225
Average	**0.89**	**54.57**	**301.94**	**17.38**

Appendix K

Table K-1. *Individual Pre-post Change Percentage for the PHQ-9*

Participant	Average Baseline	Week 8	Post-Programme 6 Weeks	Post-Programme 12 Weeks
1	10.67	-72%	-63%	-53%
2	10.00	-40%	-70%	-40%
3	10.33	-32%	-52%	-61%
4	12.33	-100%	-84%	-100%
5	13.00	-31%	-54%	-38%
6	14.50	-45%	-52%	-24%
7	10.33	-13%	-100%	-81%
8	9.33	-25%	-68%	-68%
9	17.67	-72%	-89%	-66%
10	11.33	-82%	-100%	-65%
11	8.67	-77%	-100%	-31%
12	12.33	-59%	-27%	-76%
13	12.33	-19%	-19%	-11%
14	15.33	-67%	-74%	-54%
15	12.00	42%	50%	92%
16	6.00	-50%	0%	-
17	11.67	-100%	-100%	-100%
18	4.00	-100%	-100%	-100%

Note. – Percentage Value Denotes Improvement

Table K-2*. Individual Pre-post Change percentage for the CORE-10*

Participant	Average Baseline	Week 8	Post-Programme 6 Weeks	Post-Programme 12 Weeks
1	20.33	-66%	-56%	-75%
2	18.00	-33%	-50%	-39%
3	18.33	-45%	-78%	-73%
4	15.33	-100%	-80%	-74%
5	23.67	-11%	-66%	-62%
6	21.50	-49%	-44%	-58%
7	23.67	-79%	-96%	-96%
8	13.33	-25%	-25%	-40%
9	26.00	-73%	-81%	-88%
10	19.33	-90%	-95%	-90%
11	12.67	-61%	-68%	-76%
12	19.67	-69%	-34%	-69%
13	15.67	-11%	-11%	-17%
14	18.00	-56%	-61%	-39%
15	18.00	56%	22%	44%
16	17.50	-49%	-31%	-
17	12.67	-84%	-100%	-100%
18	5.33	-100%	-100%	-100%

Note. Negative Percentage Value Denotes Improvement.

*Table K-3. **I**ndividual Pre-post Change Percentage for the Q-LES-Q-SF*

Participant	Average Baseline	Week 8	Post-Programme 6 Weeks	Post-Programme 12 Weeks
1	57%	47%	22%	6%
2	48%	28%	32%	24%
3	49%	16%	45%	57%
4	51%	48%	38%	48%
5	46%	-1%	71%	58%
6	49%	6%	61%	31%
7	45%	68%	115%	119%
8	48%	38%	38%	49%
9	28%	61%	71%	61%
10	46%	53%	53%	47%
11	52%	14%	59%	-26%
12	36%	9%	7%	91%
13	31%	48%	45%	23%
14	47%	99%	61%	52%
15	27%	-82%	-49%	-60%
16	35%	83%	63%	-
17	51%	56%	80%	38%
18	62%	53%	58%	53%

Note. Positive Percentage Value Denotes Improvement.

Appendix L

Descriptive statistics for the average growth parameters obtained by OLS regression models are presented in three tables; based on total participants (*n* = 18) and by gender (Male, *n* = 4; Female, *n* = 14) for PHQ-9, CORE-10, Q-LES-Q-SF.

Table L-1. *All Participants' Average Change Trajectories for the PHQ-9, CORE-10, and Q-LES-Q-SF*

	Initial Status	*Rate of Change*
PHQ-9		
Mean	18.698	-0.648
Standard Deviation	5.907	0.341
Bivariate Correlation		-0.341
CORE-10		
Mean	12.307	-0.578
Standard Deviation	3.889	0.403
Bivariate Correlation		-0.297
Q-LES-Q-SF		
Mean	47.08	0.538
Standard Deviation	10.55	0.337
Bivariate Correlation		0.059

Table L-2. *Male Participants' Average Change Trajectories for the PHQ-9, CORE-10, and Q-LES-Q-SF*

	Initial Status	*Rate of Change*
PHQ-9		
Mean	12.3325	-.561
Standard Deviation	6.719	.368
Bivariate Correlation		-.842
CORE-10		
Mean	21.763	-.793
Standard Deviation	7.044	.155
Bivariate Correlation		-.713
Q-LES-Q-SF		
Mean	43.174	.699
Standard Deviation	8.913	.110
Bivariate Correlation		-.622

Table L-3. *Female Participants' Average Change Trajectories for the PHQ-9, CORE-10, and Q-LES-Q-SF*

	Initial Status	*Rate of Change*
PHQ-9		
Mean	12.302	-.583
Standard Deviation	3.059	.426
Bivariate Correlation		-.099
CORE-10		
Mean	17.823	-.606
Standard Deviation	5.519	.372
Bivariate Correlation		-.264
Q-LES-Q-SF		
Mean	48.195	.492
Standard Deviation	11.008	.368
Bivariate Correlation		.233

Appendix M

Supplementary model progression using the CORE-10 and Q-LES-Q-SF as the model dependent variable to further examine the effect and interaction of variables to explain within and between person variation satisfaction and to infer the effect of the LLTTF programme over time on psychological distress and quality of life enjoyment.

Table M-1. *MLM Using CORE-10 as the Dependent Variable*

	Parameter	Model A	Model B	Model C[1]	Model C[2]
Model dependant variable		CORE-10	CORE-10	CORE-10	CORE-10
Model predictor variable/s		None	Time	Q-LES-Q-SF Time Q-LES-Q-SF x Time	PHQ-9 Time PHQ-9 x Time
Fixed Effects					
Intercept (IS)	γ^{00}	11.696*** (.879)	15.673*** (1.062)	13.512*** (1.067)	13.198*** (.649)
Q-LES-Q-SF	γ^{01}			-.378*** (.033)	
PHQ-9	γ^{02}				1.008*** (.081)
Time (ROC)	γ^{10}		-.556*** (.092)	-.330*** (.097)	-.205*** (.055)
Q-LES-Q-SF x Time	γ^{11}			.016*** (.003)	
PHQ-9 x Time	γ^{12}				.002 (.007)
Variance Components					
Residual (WP)	$\sigma^2\varepsilon$	36.232*** (3.519)	20.540* (2.082)	11.943 (1.227)	11.299 (1.142)
Intercept (BP)	σ^2O	11.061* (4.631)	16.269* (6.732)	17.608** (6.822)	5.005* (2.480)
Time (BP)	σ^21		-.653 (.471)	-1.174* (.561)	-.337 (.194)
Covariance	σ^201		.105* (.050)	0.132* (.060)	0.023 (.017)
Pseudo R^2 and Goodness-of-Fit					
Pseudo r2 for residual variance	$R^2\varepsilon$	—	.4331	.4185	.4499
-2 Log Likelihood	Deviance	1506.999	1407.734	1293.788	1231.955
Chi-squared difference in Deviance	χ^2Change	—	99.265**	113.946**	175.779**
Schwarz's Bayesian criterion	BIC	1523.314	1440.363	1337.293	1275.459

Note. * $p < .05$, ** p <.01, *** p < .001. Standard errors are in parentheses. IS = Initial Status, ROC = Rate of Change, WP = Within-Person, BP = Between-Person.

Table M-2. *MLM Using Q-LES-Q-SF as the Dependent Variable*

	Parameter	Model A	Model B	Model C[1]	Model C[2]
Model dependant variable		Q-LES-Q-SF	Q-LES-Q-SF	Q-LES-Q-SF	Q-LES-Q-SF
Model predictor variable/s		None	Time	Time PHQ-9 PHQ-9 x Time	Time CORE-10 CORE-10 x Time
Fixed Effects					
Intercept (IS)	γ00	54.605*** (3.022)	47.132*** (2.426)	50.991*** (2.092)	51.960*** (2.245)
PHQ-9	γ01			-1.301*** (.195)	
CORE-10	γ02				-1.078*** (.134)
Time (ROC)	γ10		1.045*** (.176)	.405* (.160)	.296 (.162)
PHQ-9 x Time	γ11			-.058* (.023)	
CORE-10 x Time	γ12				-.027 (.017)
Variance Components					
Residual (WP)	$\sigma^2\varepsilon$	145.608*** (14.141)	91.421*** (9.265)	64.300*** (6.554)	60.807*** (6.17)
Intercept (BP)	σ^2O	153.015** (54.762)	88.104* (35.172)	63.351* (25.627)	75.123** (29.035)
Time (BP)	σ^21		3.520 (1.868)	.557 (1.408)	.922 (1.378)
Covariance	σ^201		.350 (.185)	.231 (.131)	.210 (.117)
Pseudo R^2 and Goodness-of-Fit					
Pseudo r2 for residual variance	$R^2\varepsilon$	—	.3721	.2967	.3349
-2 Log Likelihood	Deviance	1846.354	1756.229	1676.060	1666.375
Chi-squared difference in Deviance	χ^2Change	—	90.125**	80.169**	89.854**
Schwarz's Bayesian criterion	BIC	1862.668	1788.858	1719.564	1709.88

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Standard errors are in parentheses. IS = Initial Status, ROC = Rate of Change, WP = Within-Person, BP = Between-Person

Appendix N
Case study 2

Considerations for using Low Intensity CBT with Maori: An Evaluative Study of the Effectiveness of the Living Life to the Full Wellbeing Programme

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This case study represents the work of Angus Elkington during his internship 2020. Clinical supervision was received during the treatment for the individual described within this case study.

Name and other identifying information within the case study have been changed to protect the privacy of the client. This case study is to be kept confidential.

Candidate:	**Supervisor:**
Angus Elkington	**Michelle Smal**
	
Date: 30 November 2020	**Date: 30 November 2020**

Abstract

This case study outlines my doctoral research journey and identifies my learnings regarding recruitment with Māori. Included in this case study are reflections regarding my clinical internship year during COVID lockdowns. This study aims to investigate the effectiveness of an unadapted guided Low Intensity intervention programme, Living Life to the Full developed by Dr Chris Williams, with Māori using a mixed method of qualitative and quantitative measures.

Depression is a leading cause of ill health and disability. The global problem is underscored by a lack of access to evidenced based psychotherapy and qualified workers. Low Intensity Cognitive Behavioural Therapy within a stepped care approach is one way to alleviate the burden of mental health. Studies have been conducted in New Zealand and shown to be clinically effective for treating mild to moderate depression with non-Māori groups. However, studies investigating the effectiveness of Cognitive Behavioural Therapy with Māori are scarce.

Doctoral Research Overview

The topic of my doctoral research explores the effectiveness of the Living Life to the Full programme, with Māori struggling with mild to moderate depression. The eight-week programme is developed within a low intensity framework that is based on cognitive behavioural principles. Low intensity denotes a limited number of resources, typically requiring fewer sessions and the use of alternate delivery formats such as workbooks, telephone, and internet. Evidenced based low intensity psychotherapy were primarily developed to provide greater access to evidence-based therapy. This case study will provide an overview of the study, literature review, aim, methodology and reflections of my research journey.

Literature Review

Depression

Depression was projected to become the second leading cause of disability in the world by 2020. However, the latest estimates now indicate that depression has surpassed the 2020 projection and may now be the leading cause of ill-health and disability in the world (WHO, 2017 March 30). Common mental disorders such as anxiety and depression affect almost 10% of the world population (650 million) and have increased globally by 50% since 1990 (WHO, 2016 April 13).

Depression impacts on various aspects of our lives and varies in severity, chronicity, duration, symptoms and can reoccur throughout the life span (Klein, 2010). If left untreated severe depression can lead to suicide, in which an estimated one million people worldwide die each year (Goldsmith, Pellmar, Kleinman & Bunney, 2002; Schreiber & Culpepper, 2010). Approximately 91 percent of those deaths are people suffering with mental illness (Cavanagh et al., 2003). A major cause of which is depression, but when recognised early and treated, suicidality declines (Rihmer, 2001).

The global burden and prevalence of common mental health disorders are challenging across many levels, for example: social, economic, clinical and public health services (World Federation for Mental Health, 2012). However, a report by Chrisholm and associates (2016) found that greater investment into mental health treatment had a potential cost to benefit ratio of four dollars for every one dollar invested. This included

a reduction in medical and welfare costs (Clark, 2011; Layard, et al., 2007; WHO & World Bank, 2016).

Stepped Care Approach

A stepped care approach utilises evidenced based programmes matched accordingly to the severity of disorders such as depression to improve, meet and manage the growing demands of common mental disorders (Haarhoff & Williams, 2017). To manage the finite resources of highly trained professionals and to minimize the burden of the taxpayer funded public health system, the stepped care model distinguishes treatment intervention into high and low intensity modalities (Bennett-Levy, Richards & Farrand, 2010; Clark, 2011; Bower & Gilbody, 2005; Gyani et al., 2012; NICE, 2009).

Low intensity psychotherapies are integral to stepped care because of the ability to increase access, availability and choice to evidence based interventions on a large scale which helps to ameliorate significant service delivery gaps (Bower & Gilbody, 2005; Lovell & Richards, 2000; Bennett-Levy et al., 2010). For example, in a typical year a high intensity practitioner (e.g. clinical psychologist) has a caseload around 60-80 people whereas a Psychological Wellbeing Practitioner (PWP) caseload is between 175-250 people per year (Golden, 2011; Richards, 2008). Low intensity interventions are typically situated at step two with clients presenting with mild to moderate symptoms. The integration of therapists trained to deliver low intensity therapies are pivotal to increasing access to evidenced-based psychotherapies within a stepped care model (Bennett-Levy et al., 2010). Coordination between high and low intensity services are essential to providing appropriate and tailored care (Bennett-Levy et al., 2010). This means that a person using a low intensity service can step up, down or simultaneously use multiple services as needed and appropriate to their needs (Bower & Gilbody, 2005).

Guided self-help Cognitive Behavioural Therapy

Progressive evidence over the last decade or so have supported the effectiveness of low intensity programmes that are based on CBT principles (Richards, 2010; Williams et al., 2013). The Living Life to the Full programme by Dr Chris Williams is the latest development of low intensity resources (Williams et al., 2018) that can be delivered in different formats such as group, individual and across different platforms for example telephone, bibliotherapy, and internet (website). Despite the growing literature internationally (Williams et al., 2018) and within New Zealand (Lee, 2014; Martyn, 2017;

Montagu, 2015) regarding the effectiveness of low intensity CBT programmes, there remains a dearth of research investigating the effectiveness of CBT within indigenous populations such as Māori.

Māori Mental Health: A background

Māori are the indigenous people of New Zealand or Aotearoa and are at significantly higher risk of developing depression with statistics from the Ministry of Health (2015), indicating that Māori are 1.5 times more likely than Non-Māori to develop an anxiety or depressive disorder. Whilst there has been a strong development of culturally derived programmes (Rangana, Kopuz & Tepee-Leach, 2018). This study does not take away from the importance of this work it merely aims to provide greater access to effective evidence-based therapy to improve wellness.

Evidence for the effectiveness of Low Intensity Cognitive Behavioural Therapy (LICBT) is scarce and relatively unproven in New Zealand especially with Māori populations. The proposed research aims to investigate the effectiveness of LICBT for Māori struggling with mild to moderate levels of depression. The study will focus on kaupapa Māori health service waiting lists (where possible) for treatment as a way to minimize severity that is likely to occur without any immediate intervention. Living Life to the Full by Dr Chris Williams, is a self-help course made up of eight CBT short workbooks (for more information see https://llttf.com/). This programme has been used in New Zealand and shown to be effective for Asian and elderly populations (Lee, 2014; Martyn, 2017). Given the limitation of LICBT studies in New Zealand and with Māori, this study will follow the recommended delivery framework.

Research Aims

- This study aims to investigate the effectiveness of an unadapted guided Low Intensity intervention programme, Living Life to The Full, with Māori struggling with symptoms of mild to moderate depression using qualitative and quantitative measures.

- The secondary aim was to evaluate the viability of the Living Life to the Full programme targeted at treatment waitlists.

- The study endeavoured to obtain feedback from participants who complete the programme to highlight and provide possible adaptations towards improve Māori usability.

Methodology

Participants

A total of 24 Māori (6 males, 18 female) showed interest in the study. Of the 24, three did not meet the criteria and one potential participant did not reply. A total of 20 participants, 5 males and 15 females were eligible and participated in the Living Life to the Full eight-week programme. The participants were between the ages of 19 and 62 and recruited from the Hamilton and Porirua region. Of the 20 participants who started, 18 successfully completed the programme. Thus, a total dropout rate of 10% was observed. Two participants (1 male, 1 female) dropped out from the programme during the first and second week due to a lack of participation (i.e., did not reply).

Procedure

A central motivation for engaging in Māori research was to provide a resource that could be utilised by whānau Māori. As such coordination between Ora Toa Mauri Ora, which is a kaupapa Māori mental health service in Porirua, was essential. An agreement was also met with The Psychology Centre in Hamilton, to provide a neutral meeting location that also has access to suitable psychological supervision to address any safety risks. Recruitment was done via several media streams. The first was via Facebook a social media website that links friends and affiliates which was a good medium to advertise and pass information on to friends and family who might benefit from the programme. The second stream was working in conjunction with whānau who work with Ora Toa Mauriora as community keyworkers in Porirua. Participants were also encouraged to invite others that might benefit from the Living Life to the Full self-help programme.

Those participants who expressed interest were sent electronic or physical screening measures (e.g., PHQ-9, CORE 10, Q-LES-SF). This also included consent forms, demographic questionnaires that helped to assess suitability. Consent was obtained prior to beginning the programme which included a 3 week stand down period to establish

baseline functioning. A face-to-face orientation was given following completion of the three psychometric measures and completed weekly during the eight-week programme and 6- and 12-weeks post programme. Most participants chose to meet in the home. Participants were given a new booklet to work delivered via mail each week for 8 weeks. Each booklet focusses on different CBT principles to help improve wellness and decrease symptoms of depression.

Each week the writer facilitated a review session with participants via telephonic communication. This was an opportunity to review their goals, what went well, what didn't go so well, and what can they do to overcome these issues. The PHQ-9, CORE10 and Q-LES-SF were repeated weekly to access progression and monitor the safety of participants. Following the completion of the programme participants could choose to participant in a semi structured interview to provide feedback and review of the programme. The questions were based on five primary questions: What was helpful? What was not so helpful? What would you change or include making the programme more culturally acceptable? How would you rate your engagement in the programme? How much time were you able to set aside for the programme? Audio recordings were transcribed verbatim and sent back to participant to review and make changes.

Measures

Three psychometric questionnaires were used to monitor change outcomes which is an essential component of LICBT, The Patient Health Questionnaire item 9 (PHQ-9) (Kroenke, Spitzer & Williams, 2001); Ten-item Clinical Outcome Routine Evaluation (CORE-10) (Barkham et al., 2013); and Quality of Life and Enjoyment Short form Questionnaire (Q-LES-Q-SF) (Endicott, Nee, Harrison, & Blumenthal, 1993). PHQ-9 and CORE-10 measures have been used to determine cut off scores regarding mild, moderate, and severe levels of depression (Lopez, Rees & Castro 2014; Montagu, 2015; NCCMH, 2010). These three change outcome measures were selected, based on recent LICBT studies (Lee, 2014; Montagu, 2015; Williams et al., 2018), and established reliability, sensitivity to change and brevity. The Client satisfaction questionnaire 8 (Attkisson & Greenfield, 1995) was completed at the conclusion of the programme. An issue with using this questionnaire in the current study is that the CSQ-8 has no subscales and only gives a single overall measure of satisfaction between 8 and 32 points (Larsen et

al, 1979). However, a section is provided at the bottom to capture additional comments and within the post programme interview.

Data Analysis

An initial consultation was done with a department statistician prior to beginning the study. It was determined that a mixed method approach that used repeated measures and thematic approach would be suitable to provide feasible data to perform multilevel level modelling (MLM) but would depend on enough participants. Due to insufficient participant numbers and statistical power, it was decided in a post programme consultation that early analysis of MLM outlined in Singer, Willett and Willett (2003) Applied Longitudinal Data Analysis by would be appropriate. Data derived from interviews were also extracted to identify common or collective themes (Smith, Flowers & Larkin, 2009). A thematic approach for qualitative data will also provide a nuanced perspective of the acceptability and effectiveness of LICBT in real world settings.

Figures 1 to 3 are preliminary analysis of the data collected from participants who completed the current study. According to these graphs most participants benefited from the living life to the full self-help programme. Patterns typically show decreases in symptoms pre, during and post programme on the PHQ-9 and CORE-10 and increases in quality of life.

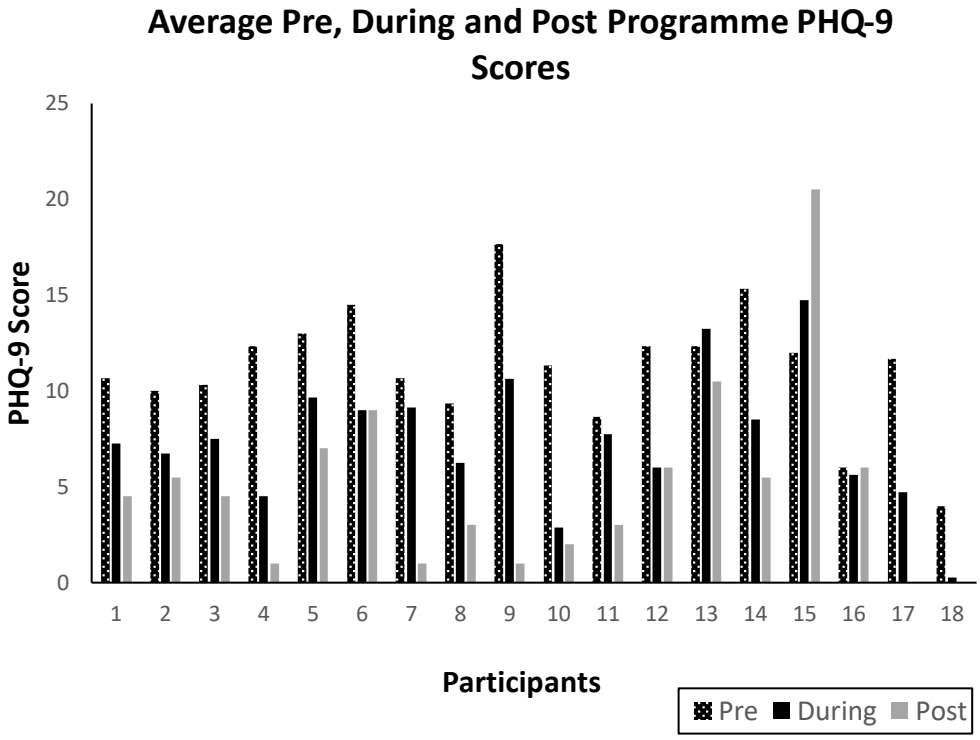

Figure 1 *Average pre, during and post programme PHQ-9 scores from Māori participants who completed the 8 week Living Life to the Full self-help programme.*

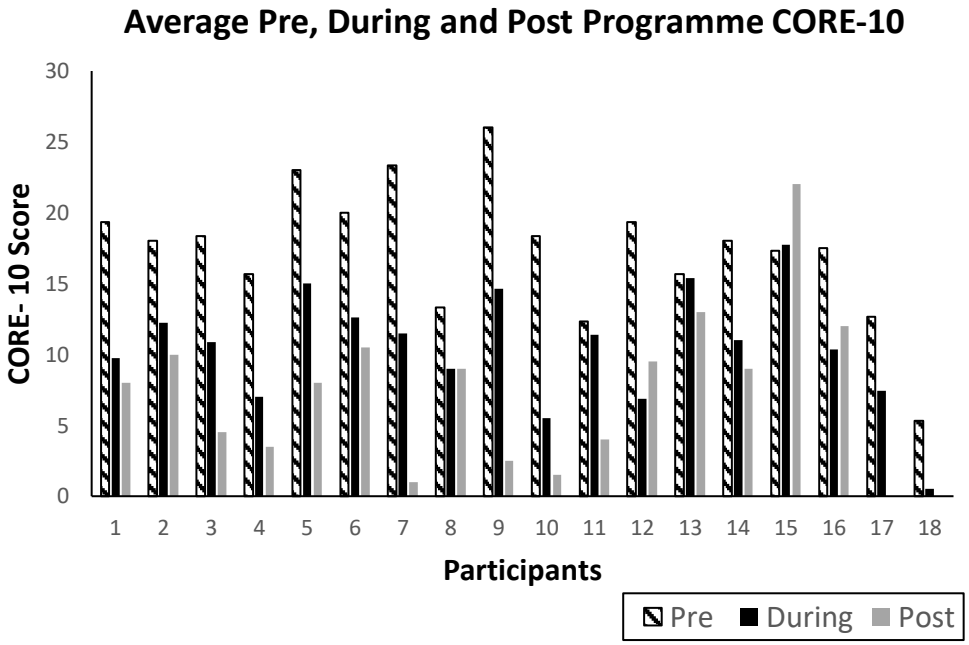

Figure 2 *Average pre, during and post programme CORE-10 scores from Māori participants who completed the 8 week Living Life to the Full self-help programme.*

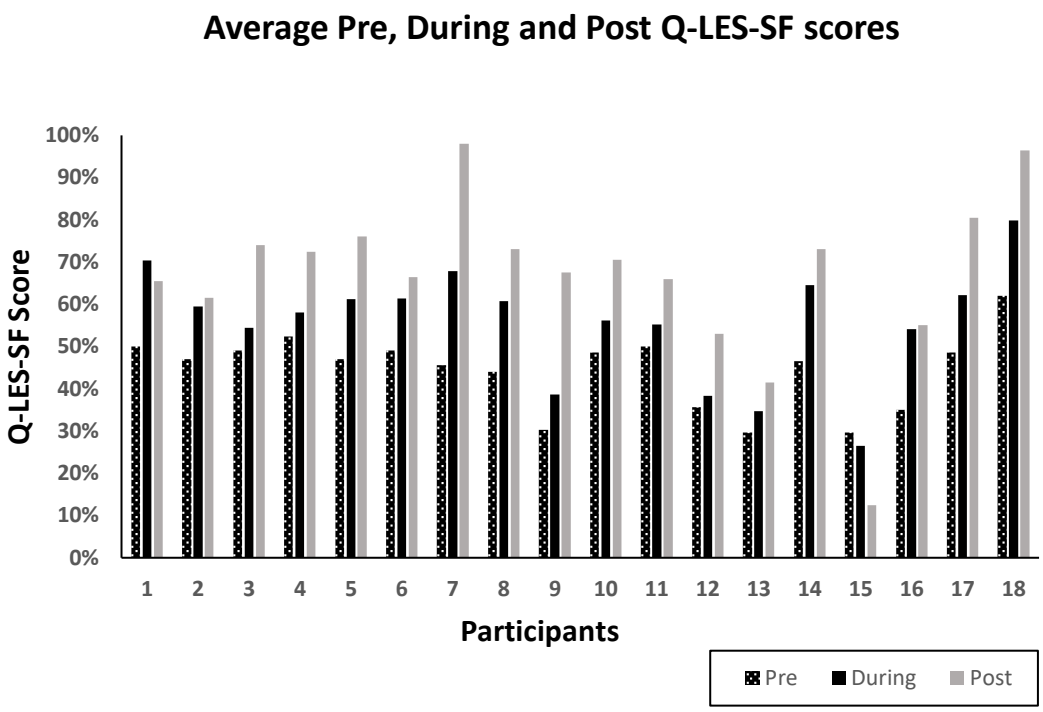

Figure 3 *Average pre, during and post programme Q-LES-SF scores from Māori participants who completed the 8 week Living Life to the Full self-help programme.*

Ethics

The study received ethical approval from the Health and Disability Ethics Committee (HDEC) (reference number: 19STH26). Prior screening and the use of three psychometric change outcome measures throughout the programme helped to minimise the level of risk. Any significant risk was discussed with supervisors who are trained Clinical Psychologists. Additionally, Oratoa Mauriora and The Psychology Centre had trained Clinical Psychologists on site if contact could not be made with supervisors. Participants were fully informed prior to consenting and that consent could be withdrawn up to the completion of programme. All participants were anonymised, and demographic and programme data were stored in separate locked cabinets. All data will remain on file for 10 years.

Research Journey

Undertaking research in mental health provides some major barriers to recruitment. Firstly, mental health still has a significant amount of stigma within society

in New Zealand (Gordon, Davey, Waa, Titania, & Wanaka. 2017). Secondly, Māori groups and communities have suffered under colonial regimes and are suspicious of the implication of research (Cram et al., 2002). Therefore, greater care was needed to establish rapport and to develop relationships essential to generate trust even as an affiliated iwi member of Ngāti Toarangatira.

When I first decided to undertake this study, an underlying motivation was to provide resources for Māori and in particular whanau. Having done Māori research for my master in social sciences degree I was aware of the difficulties in recruitment, however, I was somewhat naive about the amount of effort that would be required to gain trust of fellow iwi. Thus, the whakawhanaungatanga process took the better part of a year instead of the expected two months. In this section I will discuss how I overcame several barriers to recruitment in Māori mental health research.

In 2016, my family and I had decided to take a trip home to Takapuwahia, Porirua, to reconnect with whānau. As I travelled down the Kapiti coast I was inspired to present my research to an aunty who I knew worked in mental health. The reception was positive and although would require more effort to frequently travel the six and a half hours, the benefit to whānau and iwi would help to serve the community. After several emails back and forth with my aunty, organising meetings with management, we were able to have support from OraToa Mauriora and two of my aunties who worked within the service. The ability to have whānau with significant roles within Māori communities helped support the viability of my study going forward as this would help drive recruitment in the community and provide opportunities to be seen around and on the marae.

Undertaking research in two regional locations provided different obstacles in which social networking proved to be the most effective method. This was done via two approaches, Facebook advertisement and keyworkers approaching whānau within the community. A research statement was posted on My Facebook page and made public to friends and family subsequently shared on approximately 50 Facebook pages. The initial uptake was fast with eight participants signing up within the first two weeks of advertising within the Hamilton region. Facebook advertisement was less effective for the Porirua community but required a different social networking approach.

The first approach was to be seen on the marae which was less intentional and more the result of supporting my aunties with their priorities. Whilst on the marae I worked in the kitchen several times. The kitchen was an important space for generating discussion and interest regarding my proposed research in which many of them invited friends and whānau who they thought would benefit from such a programme. The support of prominent community figures was essential in finding whānau in the community; however, this required constant follow-up as there was more immediate priorities that needed to be fulfilled, for example tangihanga. For many of the Porirua recruits the marae had a central role in their lives. Tangihanga was a frequent disruption to fulfilling the programme but an essential process that takes priority over all personal affairs. This highlighted the interdependent relationship of Māori communities in which individual need maybe neglected and the need for flexibility in research or programme delivery.

A secondary effect of the success of the programme was that participants who saw value would often share the booklets with their friends and whanau. One participant would carry all the books in her bag for reference but would also use the content to give advice and support to friends and family. This also resulted in people coming forward to participate in the programme and further reinforces the effectiveness of networking.

The third recruitment approach was to attempt to use service waitlists. This had a twofold aim of assessing the viability of using LICBT programmes to reduce waitlists and provide support during a likely waiting period between six and nine months. The second aim was simply to increase potential recruitment. Two participants from the waitlist were able to participate but because of the strict recruitment conditions majority of Māori who were on the waitlist were not eligible. The two waitlist participants acknowledged the usefulness of such a programme particularly because the immediate need for support at the time of being referred.

Confidentiality was also critical for some participants who did not want whānau in the community finding out. Therefore, having a research design that provided home face to face orientations and within mental health services helped to put participants at ease and encourage greater recruitment uptake. Working with whānau can be viewed as unethical; however, according to my experience working with whānau in a research setting may promote greater treatment outcomes because of an established relationship

of trust and understanding. The conceptualisation of whānau must also be understood as including extended family as well as those with a collective or mutual affiliation. Care is needed to maintain a professional relationship and to not engage in interpersonal conflict which was apparent. The role of the facilitator to manage the programme rather than therapy helped to remain neutral in personal affairs.

My final point to mitigating barriers to research with Māori, specifically recruitment, is the cultural competency of the facilitator. Therefore, being Māori may be advantageous to breaking down barriers and establishing trust. It would be further beneficial if the facilitator was affiliated to their community by iwi-hapu. Cultural values and ways of being vary across iwi-hapu groups and can be problematic if tapu or tikanga is not adhered to. The ability to navigate this space effectively allows for greater focus on improving wellness and treatment outcomes. This is not to say that Pakeha should not be in this space, but that cultural competency is a must for interacting and engaging with Māori. My experience during the study was that even though I am not fluent in Te Reo Māori and Tikanga, I have learnt intrinsic ways of being from Toarangatira.

In Summary

Low intensity CBT programmes such as the Living Life to the Full programme indicate promising results in reducing low mood and increasing life satisfaction within the cohort of Māori participants who undertook the eight-week programme.

Preliminary evidence suggests the Living Life to the Full programme may be a suitable framework to support Māori who are struggling with depression in the community. However, caution should be taking to ensure that the programme is delivered by a facilitator who is experienced in ways of being Māori.

In conclusion the Living Life to the Full programme is one way to provide greater access to evidenced based therapy for Māori from a service and community level. However, the effectiveness may benefit from modification that better align to being Māori.

Clinical Psychology Internship

2020 has been one of the hardest years I have ever experienced and not just because of my clinical internship. This reflective section will discuss some of the learnings from my clinical psychology internship with the Hamilton South Psychologist's Office

within the Department of Corrections and working during COVID lockdowns in New Zealand.

As a result of the COVID lockdowns visitation to clients was not allowed and instead assessment and treatment was conducted using telecommunications. In many ways my research prepared me for establishing relationships over the phone. Although we were able to continue some clients declined to engage as it was difficult for learning, were in environments that violated their privacy, or preferred face to face. For some of the clients, this had implications on their sentence and potential release from prison. Over time Corrections was able to provide an audio-visual link which enabled a more face to face platform to engage clients with. Given the personality traits of prison inmates who tend to suspicious this was a preferable approach given the circumstances. Furthermore, the experience over this time highlighted the importance of technology in aiding our work and providing greater access to treatment for clients.

Overall, I have thoroughly enjoyed working with people and applying the skills I have learnt over the course of my academic tutelage. The application of which has not been so clear cut as portrayed in the textbooks. This has required problem solving skills and supervision to maximise the effectiveness as a clinician. In this way working with the complex and uniqueness of people added to my procedural knowledge.

Working within the Corrections scope has also been humbling trying to work with difficult clients who often do not want help or support. On occasion it has been particularly difficult working within a legal framework that has a primary obligation to assess risk of reoffending whilst trying to portray the individual's story and context. In this way I have negotiated a way to meet obligations and help support the wellbeing of persons in my care. One way I have done this is by trying to understand clients from a holistic perspective that incorporates cultural understanding and treatment needs such as referrals to Māori cultural assessments.

I have also learnt the value of patience and that it takes time to learn and develop skills. Initially I was frustrated reflecting on interviewing and report writing skills and finding much to work on. However, mentoring from my supervisor helped to put things into perspective. This helped me to acknowledge areas that needed work and to try and incorporate these skills, questions, and processes into the next assessment or treatment

session. This also helped me realised my internship was about developing competence and not perfection.

Supervision was a key tool that I was able to access weekly. My supervisor normalised my anxieties and concerns and provided necessary direction and guidance. Thus, supervision played a significant role in wellbeing and reducing stress. Working within a team environment has also allowed me to draw on the many years of experience and find more effective ideas to provide the best care for my clients.

It has been a privilege to be in a supportive role and to see the progress of my clients. Although the nature of working in corrections can be dire at times and unrewarding, occasionally there will be one client who is looking to improve their life and puts their trust in you for help and support. It is these clients that put into perspective the reasons for choosing this profession. This brings me to my final reflection, that it is not necessarily our role as clinicians to find a cure all but to assist clients to make change, and that change need not be determined by symptom reduction or a lower risk of reoffending, but by progress towards increased wellbeing. Therefore, our role may only be to instil hope, desire, motivation to change or to develop the necessary skills. In this way it is important to acknowledge the small and large gains and understand that positive engagement with psychology may lead to greater change in the future.

References

Attkisson, C. C., & Greenfield, T. K. (1995). The client satisfaction questionnaire (CSQ) scales.

Outcome assessment in clinical practice.

Barkham, M., Bewick, B., Mullin, T., Gilbody, S., Connell, J., Cahill, J., ... & Evans, C. (2013). The CORE-10: A short measure of psychological distress for routine use in the psychological therapies. *Counselling and Psychotherapy Research*, *13*(1), 3-13.

Bennett-Levy, J., Richards, D., & Farrand, P. (2010). *Low Intensity CBT Interventions: A Revolution in Mental Health Care*.

Bower, P., & Gilbody, S. (2005). Stepped care in psychological therapies: access, effectiveness and efficiency. *The British Journal of Psychiatry, 186*(1), 11-17.

Cavanagh, J. T., Carson, A. J., Sharpe, M., & Lawrie, S. M. (2003). Psychological autopsy studies of suicide: a systematic review. *Psychological medicine*, *33*(3), 395-405.

Chisholm, D., Sweeny, K., Sheehan, P., Rasmussen, B., Smit, F., Cuijpers, P., & Saxena, S. (2016). Scaling-up treatment of depression and anxiety: a global return on investment analysis. *The Lancet Psychiatry, 3*(5), 415-424. doi: 10.1016/S2215-0366(16)30024-4

Clark, D. M. (2011). Implementing NICE guidelines for the psychological treatment of depression and anxiety disorders: the IAPT experience. *International review of psychiatry, 23*(4), 318-327.

Cram, F., Henare, M., Hunt, T., Maugeri, J., Pahari, D., Pitamah, S., & Teuta, C. (2002). Maori and science: Three case studies. *Final report. Auckland: Auckland In-services*.

Endicott, J., Nee, J., Harrison, W., & Blumenthal, R. (1993). Quality of Life Enjoyment and Satisfaction Questionnaire: a new measure. *Psychopharmacology bulletin*.

Golden, K. (2011). Low intensity, but a high caseload. *The Psychologist, 24,* 380-383.

Goldsmith, S. K., Palmar, T. C., Kleinman, A. M., & Bonney, W. E. (2002). *Reducing suicide: A national imperative*. National Academies Press.

Gordon, S., Davey, S., Waa, A., Titania, R., & Wanaka, T. (2017). Social inclusion and exclusion, stigma and discrimination, and the experience of mental distress. *Auckland: Mental*

Gyani, A., Pumphrey, N., Parker, H., Shafran, R., & Rose, S. (2012). Investigating the use of NICE guidelines and IAPT services in the treatment of depression. *Mental health in family medicine, 9*(3), 149.

Haarhoff, B., & Williams, M. W. (2017). Low intensity Psychological interventions in Aotearoa: What can we learn from IAPT? *John Fitzgerald, 46*(2).

Klein, D. N. (2010). Chronic depression: diagnosis and classification. *Current Directions in Psychological Science, 19*(2), 96-100.

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The phq-9. *Journal of general internal medicine, 16*(9), 606-613.

Larsen, D. L., Attkisson, C. C., Hargreaves, W. A., & Nguyen, T. D. (1979). Assessment of client/patient satisfaction: development of a general scale. *Evaluation and program planning*, *2*(3), 197-207.

Laynard, R., Clark, D., Knapp, M., & Mayraz, G. (2007). Cost-benefit analysis of psychological therapy. *National Institute Economic Review, 202*(1), 90-98.

Lee, K.-C. (2014). *The effectiveness and cultural compatability of a guided self-help cognitive-behaviour programme for Asian students in New Zealand: a thesis presented in partial fulfilment of the requirements for the degree of Master of Arts in Psychology at Massey University, Albany, New Zealand.* Massey University.

Lopez, J. E., Rees, M., & Castro, M. (2014). Are low-intensity CBT interventions effective and

meaningful for the Latino community in the UK?. *International Journal of Culture and Mental Health*, *7*(4), 410-425.

Lovell, K., & Richards, D. (2000). Multiple access points and levels of entry (MAPLE): ensuring choice, accessibility and equity for CBT services. *Behavioural and Cognitive Psychotherapy, 28*(4), 379-391.

Martyn, J. (2017). *Group guided low intensity self-help for community dwelling older adults experiencing low mood: a dissertation presented in partial fulfilment of the requirements for the degree of Doctor of Clinical Psychology, Massey University, Albany, New Zealand* (Doctoral dissertation, Massey University).

Ministry of Health. (2015). Mental Health. Retrieved from https://www.health.govt.nz/our-work/populations/Māori-health/tatau-

kahukura-Māori-health-statistics/nga-mana-hauora-tutohu-health-status-indicators/mental-health

Montagu, A. (2015). *Investigating the effectiveness and nature of change in low-intensity CBT: guided self-help for individuals with low mood in New Zealand: a dissertation presented in partial fulfilment of the requirements of the degree of Doctor of Clinical Psychology at Massey University, Albany, New Zealand.* Massey University.

NCCMH. (2010). Depression: The NICE guidance on the treatment and management of depression in adults. Updated Edition. National Clinical Practice Guideline 90.

NICE. (2009). Depression in adults: recognition and management. Retireved from https://www.nice.org.uk/guidance/cg90

Rangana, D., Kopuz, M., & Tepee-Leach, D. (2018). Mahi a Atua: a pathway forward for Māori mental health?. *Climate change, human health and the CPTPP*, *131*(1471).

Richards, D. (2008). *Improving Access to Psychological Therapies Implementation Plan: Curriculum for low-intensity therapies workers*. London England: Department of Mental Health,. Retrieved from file:///Users/TIMU%200k/Downloads/DH_084494.pdf

Richars, D. (2010). United Kingdom perspective. In S. Gilbody & P. Bower (eds.), *Depression in primary care: evidence and practice*. Cambride: Cambride University Press.

Rihmer, Z. (2001). Can better recognition and treatment of depression reduce suicide rates? A brief review. *European Psychiatry*, *16*(7), 406-409.

Schreiber, J., Culpepper, L., & Fife, A. (2010). Suicidal ideation and behavior in adults. *UpToDate. Edited by: Solomon D*.

Smith, J. A., Flowers, P., & Larkin, M. (2009). Analysis: theory, method and research.

Singer, J. D., Willett, J. B., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modelling change and event occurrence*. Oxford university press.

Williams, C., McClay, C. A., Matthews, L., McConnachie, A., Haig, C., Walker, A., & Morrison, J. (2018). Community-based group guided self-help intervention for low mood and stress: randomised controlled trial. *The British Journal of Psychiatry*, *212*(2), 88-95.

Williams, C., Wilson, P., Morrison, J., McMahon, A., Walker, A., Allan, L., . . . Tansey, L. (2013). Guided Self-Help Cognitive Behavioural Therapy for Depression in Primary Care: A Randomised Controlled Trial. *PLOS ONE, 8*(9), 10.1371/annotation/1998d1371a1371-1377c1306-1374ebd-1378deb-d1375db1375ad1321c1331. doi: 10.1371/annotation/998d1a71-7c06-4ebd-8deb-d5db5ad21c31

World Federation for Mental Health. (2012). Depression: A Global Crisis. World Mental Health Day. October 10 2012. https://scholar.google.co.nz/scholar?hl=en&q=DEPRESSION%3A+A+Global+Crisis+World+Mental+Health+Day%2C+October+10+2012&btnG=&as_sdt=1%2C5&as_sdtp=

World Health Organization. (2017 March, 30). "Depression: Let's talk" says WHO, as depression tops list of causes of ill health [Media release]. Retrieved 07/17/2017 2017 from http://www.who.int/mediacentre/news/releases/2017/world-health-day/en/

World Health Organization, & World Bank. (2016 April 13). Investing in treatment for depression and anxiety leads to fourfold return [New Release]. Retrieved from http://www.who.int/mediacentre/news/releases/2016/depression-anxiety-treatment/en/

World Health Organization, & World Bank. (2016 April 13). Investing in treatment for depression and anxiety leads to fourfold return [New Release]. Retrieved from http://www.who.int/mediacentre/news/releases/2016/depression-anxiety-treatment/en/