A Grounded Theory Study of Depression in a Sample of Men Participating in a Clinical Trial Examining the Effect of a Dietary Supplement on Depression.

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Abstract.

Male depression is one of the most misunderstood and under diagnosed disorders in psychology today. Recent research examining male depression has suggested that this misunderstanding is due to an over reliance on positivist research practices. In addition the application of homogenous theories of depression developed from research using predominantly female samples to understand depression in males has clouded the area. In light of this research there have been calls to examine masculine depression, by looking at the experiences of affected males, using a qualitative methodology. The primary objective of the present study was to conceptualise depression based on the experiences of affected males using a grounded theory methodology. The sample consisted of 31 New Zealand males participating in a 12-week, double blind, placebo controlled trial examining the effectiveness of dietary supplementation as an adjunct to usual therapy in the treatment of depression.

The basic social process emerging from the men's lived experience of depression involved participants developing a personal paradigm of depression. The development of this paradigm influenced the way the men understood and managed their depression. It evolved with the accumulation of experiential knowledge of their distress, which included experiencing the symptoms of depression, using personal coping strategies, experiencing the build up of depression, and receiving professional treatment. The implications of these findings for researchers and clinicians working in the area of male depression are discussed.

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This thesis is dedicated to
Mum, Dad, Matt, and Hill.

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PART ONE

LITERATURE REVIEW

CHAPTER ONE

INTRODUCTION AND OVERVIEW.

Kline (1964) proposes that since the beginning of time depression has caused more suffering than any other disease known to humans. Despite this, at present there is no universally accepted definition of this phenomenon (Wolpert, 1999). A review of the literature by Compas, Sydney, and Grant (1993) shows that psychologists have used three different approaches to the assessment and classification of depression. These are depression as a categorical entity, a dimension of mood, and clinical syndrome. This section will discuss the main characteristics of these approaches and the relevance they have to clinicians and researchers. In contrast to these scientific formulations, experiential accounts of depression offer an alternative understanding of depression as a phenomenon and will also be discussed. This section will begin by examining the prevalence and impact of depression worldwide and in New Zealand.

The Prevalence and Impact of Depression.

Community based and clinical research has demonstrated that depression is the most prevalent mental disorder in the world today (Lecrubier, 2001; Lepine, 2001). A prominent publication by the World Health Organisation predicts that by 2020 major depression will be second only to ischemic heart disease in the level of disability experienced by sufferers (World health Organisation, 1996, cited in Uestuen, & Bedirhan, 2001). In an attempt to estimate the global prevalence of depression the Cross-Cultural Collaborative Group (Weissman, et al., 1996) collected data from America, Canada, Puerto Rico, Germany, Taiwan, Korea, France, Italy, Lebanon, and New Zealand. These researchers found that the six-month prevalence of depression between these countries varied greatly, ranging from 2 to 6% while the lifetime prevalence of depression ranged from 1.5 to 19%. New Zealand presented with one of the higher life time prevalence rates in this study with 11.6%.

Early attempts to quantify the impact of depression estimated its financial cost. Stoudemire, Frank, Hedemark, and Kamlet (1986) speculated that for every dollar spent on the direct management of depression (inpatient care, outpatient care, and pharmaceuticals) two dollars in cost are lost due to decreases in productivity through

mortality, and another five dollar cost is associated with losses in productivity through morbidity. Although no cost of illness studies have been performed in New Zealand, adjusting data on the economic cost of depression in America to New Zealand Bushnell, and Bowie (1995) estimate that in 1980 the cost of depression was over 150 million dollars.

For the most part financial estimates are crude as they are subject to a wide range of errors and cannot account for emotional costs of depression (Bushnell, & Bowie, 1995). More recently researchers have used measures of disability to estimate the impact of depression. The World Health organisation (1996) used as a measure of disability "adjusted life years". This expresses years of life lost to premature death and years lived with disability. Using this measure these researchers found that depression was responsible for 10.7% of all the years of disability worldwide. Furthermore, research by Judd (1995) has examined the relationship between depression and occupational functioning and reports that 26-53% of depressed patients reported occupational and physical disability compared to 7-12% of non-psychiatric patients.

Currently, there is a large amount of variation in the estimated prevalence rates, and social impact of depression. As a result there have been calls by a number of psychiatric epidemiologists to focus on improving the questioning about the timing and duration of depressive episodes and to examine in-depth a range of depressive syndromes, such as seasonal affective disorder, brief recurrent depression, atypical depression, and chronic fatigue syndrome (Kaelber, Moul, & Farmer, 1995). It is believed that such research will improve validity and reliability of future prevalence and impact estimates of depression.

Depression as a Categorical Entity/ DSM-IV Diagnostic Criteria.

As a categorical entity depression is viewed as a psychopathological state which is qualitatively different from normal human experience. This approach to the study of depression is based on the disease model of mental disorder and as such identifies depression by the presence of a distinct cluster of symptoms over a set duration of time (Compas, et al., 1993).

The two most prominent diagnostic systems offering a categorical definition of depression are the Diagnostic and Statistical Manual of Mental Disorders version

Four (DSM-IV) published by the American Psychiatric Association (1994) and the International Classification of Diseases version ten published by the World Health Organisation (1990). Despite some variation in terminology these schedules are highly comparable with similar orientations and diagnostic categories (Kaelber, Moul, & Farmer, 1995). This review will focus on the diagnostic criteria specified by the DSM-IV as it is the most widely used diagnostic tool in New Zealand and world wide (Maser, Klaeber, & Weise, 1991).

The DSM-IV uses a hierarchical multiaxial system which classifies unipolar depression under the broader construct of mood disorders. These are disorders in which disturbance in mood is the primary feature. The DSM-IV lists three interrelated depressive disorders under this diagnostic category: major depressive disorder, dysthymic disorder, and depressive disorder not other wise specified. To be diagnosed with one of these disorders requires that the respective behavioural or psychological symptoms cause the individual present distress and/or disability in social, occupational, or other areas of social functioning (American Psychiatric Association, 1994).

Major depressive disorder is characterised by the presence of one or more major depressive episodes. The diagnostic criteria for a major depressive episode is outlined in table 1.

Table 1. DSM-IV Diagnostic Criteria for Major a Depressive Episode.

Depressed mood most of the day nearly every day.
Diminished interest or lack of pleasure in daily activities.
Fluctuations in body weight and/or changes in eating patterns.
Insomnia or hyposomnia.
Psychomotor agitation or retardation.
Loss of energy or fatigue.
Feelings of worthlessness or guilt.
Inability to concentrate, indecisiveness.
Recurrent thoughts of death, recurrent suicidal ideation.

A depressive episode is diagnosed when five or more of the symptoms are present for at least two weeks with one of the symptoms being either "depressed mood most of the day nearly every day" or "diminished interest or lack of pleasure in daily activities". The DSM-IV differentiates between a single episode of depression and recurrent episodes of depression, which require at least two depressive episodes with a period of more than two months between each episode.

The essential feature of dysthymic disorder is the presence of depressed mood for most of the day, for more days than not over the past two years, and that during the this period the individual has not been without these symptoms for longer than two months. For a diagnosis of dysthymic disorder an individual must present with two or more of the following symptoms outlined in table 2.

Table 2. DSM-IV Diagnostic Criteria for Dysthymic Disorder.

Poor appetite or over eating.
Insomnia or hyposomnia.
Loss of energy or fatigue.
Inability to concentrate, indecisiveness.
Feelings of hopelessness.

The third diagnostic category, depressive disorder not otherwise specified is used when an individual does not meet the criteria for either major depressive disorder or dysthymic disorder but are presenting with depressive symptomatology.

Assessing depression using the DSM-IV is an inductive procedure and involves the administration of structured and semi-structured diagnostic interview schedules by a trained clinician. Two commonly used structured and semi-structured diagnostic interview schedules used in New Zealand are the Composite International Diagnostic Interview (CIDI) and the Schedules for Clinical Assessment in Neuropsychiatry (SCAN) respectively (Andrews, Peters, Guzman, & Bird, 1995). The use of interview schedules such as these ensure a thorough and consistent examination of an individual's presenting symtomatology in relation to the diagnostic criteria.

In addition to making a diagnostic judgement, using axis three, four, and five of the DSM-IV a clinician can draw attention to other variables which are relevant to understanding an individual's problem. Axis three allows the clinician to list physical disorders or general medical conditions relating to an individual's diagnosis. Research has shown that up to 25% of people with medical conditions such diabetes, myocardial infarction, carcinomas, and strokes develop depression and that the management of these cases is more complex than treating depression alone (American Psychiatric Association, 1994). Axis four is used to code psychosocial and environmental problems which have significantly contributed to, or exacerbated a person's condition. These problems are normally restricted to events that have occurred during the year preceding the assessment and are judged in relation to the amount of change the problem has caused, the degree to which the event is desirable, and the degree of control the individual has over the event. Using axis five, the global assessment of functioning (GAF) scale, a clinician can record an individual's overall level of functioning on a scale from 0 to 100. An individual's GAF score is considered a composite of their social functioning, occupational functioning, and psychological functioning, and does not take into account physical or environmental limitations.

The multiaxial nature of the DSM-IV represents the promotion of a biopsychosocial model to the classification of mental disorders (Kaplan, & Sadock, 1998). Blashfield (1998) claims that in relation to its predecessors the adoption of this approach by the DSM-IV has made significant advances in the way depression is diagnosed. The DSM-IV has offered clinicians and researchers an efficient means of organising and communicating complex clinical information across a variety of mental health care settings with a high degree of reliability. This has allowed researchers to accurately compare and contrast large amounts of case study data which has led to advances in the identification, prediction, and treatment of depression.

Another prominent feature of the DSM-IV is the adoption of an atheoretical framework. The DSM-IV is designed to offer a descriptive account of depression from an empirical basis while remaining neutral regarding etiology (American Psychiatric Association, 1994). Concerns have been raised however that the inability to offer etiologically significant criteria has resulted in largely arbitrary and in some instances vague and over lapping diagnostic criteria and categories. Downing-Orr

(1998) believes that these inadequacies are reflected in the diagnostic criteria for mood disorders which over emphasises behavioural symptomatology to the detriment of the core emotional features of depression. A further consequence of this approach is that diagnostic decisions can become subjective, consensus based and coloured by confounds such as the experience of the clinician, and the service demands being made, contributing to low rates of inter-rater reliability (Blashfield, 1998). The DSM-IV has also been criticised for its emphasis on the individual in understanding mental disorder. Davison and Neale (1998) believe that the process of labelling an individual with a mental disorder promoted by the psychopathological paradigm overemphasis personal attributes in the development of the disorder and ignores the contribution of external factors. This approach is problematic as it encourages the individual to adopt a passive role in the management of the problem. In addition, being labelled with a mental disorder such as depression also carries a social stigma of moral inferiority which can create additional difficulties for the sufferer (Szasz, 1971).

Depression as a Dimension of Mood.

Constructing depression as a dimension of mood takes the internal affective experience of dysphoria as the central focus of study. Researchers taking this perspective assume that the co-occurring behavioural and cognitive symptoms of depression are a by-product of the internal mood state and therefore make no attempt to formulate a taxonomy of depression (Peterson, Sarigiani, & Kenedy, 1991). Unlike the categorical formulation of depression, constructing depression in this manner assumes that clinically significant depression and common transient negative feelings lie on a continuum. This view has been supported by research showing that clinical and non clinical depression share similar typologies, etiologies, respond equally well to the same treatment protocols, and show a level of psychometric continuity (Flett, Vredenburg, & Krames, 1997). Research has also shown that mild depression causes a similar pattern of dysfunction to severe levels of depression and can require the same degree of professional assistance (Rohde, Lewinsohn, & Seeley, 1991).

The primary method of assessing depression consists of pencil and paper questionnaires such as the Center for Epidemiological Studies Depression scale (CES-D; Radloff, 1977) and the Beck Depression Inventory II (BDI-II; Beck, 1996). These tests are made up of single scale items that assess the prevalence and intensity of

symptoms that reflect the central features of depressed affect. The items are normally presented in the form of likert scales or as a series of responses reflecting various levels of the item in question. Data from such measures is structured in the form of numerical total and subtotal scores, which can then be compared with data collected from a normative population.

Focussing on the internal mood state has utility for clinicians and researchers as self reported depressed mood has been shown to be the most distinguishing feature differentiating depressed from non depressed people and is the single best indicator of distress and referral status (Compas, et al., 1993). However, the robust nature of depression as an indicator of distress is underscored by the close relationship between reported depression and other forms of negative affect such as such as anxiety, anger, fear and hostility (Finch, Lipovsky, & Casat, 1989; Watson and Clark, 1992). The high degree of co-variation between these constructs has led researchers to examine the features of depression that distinguish it from other negative emotions (Finch, Lipovsky, & Casat, 1989). Watson and Clark (1992) have argued that depression should be understood as one component of the broader construct of negative affect, which can be differentiated from other negative emotions by its relationship to positive affect. While other forms of negative affect such as anxiety seem to be uncorrelated with positive affect depression is inversely correlated with positive emotions such as happiness, excitement, and pride. High levels of suicidal ideation, psychomotor retardation, as well as feelings of hopelessness and worthlessness have also been shown to be distinguishing features of depressed affect (Spielberger, Ritterband, Sydeman, Rebeiser, & Unger, 1995). A related line of research has examined the relationship between dysphoric mood, paranoia, and mania. Research by Martin, and Penn (2001) as well as Bentall and colleagues (1999, 2001) have demonstrated that depression, paranoid delusions, and mania share a similar cognitive pathway associated with attentional and attributional biases. Such findings have implications for understanding depression as a component of a broader psychiatric construct.

Depression as a Clinical Syndrome.

As a clinical syndrome depression is viewed as a statistically validated constellation of behaviours, thoughts, and emotions (Peterson, et al., 1993). In relation

to the previously discussed formulations constructing depression as a syndrome makes no apriori assumptions regarding the manifestation of depression. As a syndrome depression is characterised by the specific social and behavioural problems an individual is experiencing.

Using a multivariate approach depression is assessed by gathering a wide range of data from a respondent's environment. Data may come from partners, friends, work mates, as well as the respondents themselves. Data collection techniques also vary and may include interviews, self report pencil and paper questionnaires, as well as observational techniques. The data is then deductively organised using statistical techniques such as factor analysis and principal component analysis. It is assumed that if a syndrome of depression exists it will present across the various forms of data as a constellation of co-occurring psychological and behavioural problems (Compas, et al., 1993).

This approach to the assessment of depression has led to the collection of a large amount of nomothetic data from a wide variety of respondents and has allowed researchers to examine how depression relates to a range of variables such as age, sex, and ethnicity (Peterson, et al., 1993). From this data attempts have been made to develop an empirically valid taxonomy of depression as a syndrome. The most extensive attempt to do this is represented in the work of Achenbach and colleagues (1991) who used principal component analysis to analyse data from a sample of clinically referred adolescents. Rather than identifying a core syndrome of depression these researchers found eight empirically validated syndromes with a high degree of covariability. These are withdrawal, somatic complaints, social problems, thought problems, attention problems, delinquency, aggression, and self-destructive behaviours. The inability to identify a distinct depressive syndrome combined with the high degree of variation across age and sex has been detrimental to the wide spread support of this taxonomy in research and practice. (Compas, et al., 1993).

The Experiential Nature of Depression.

Underlying scientific constructions of depression there exists a large body of literature describing lived experiences of depression. Experiential accounts of depression date back to the fourth century BC and the writings of Hippocrates. Since

then accounts of depression have been offered by a wide range of people including celebrities, authors, poets, sports people, and medical professionals (Barker, 1992).

Experiential accounts of depression are important to researchers and clinicians as depression is primarily a semantic construct which does not exist independent of human consciousness and cannot be understood without the interpretation of those who have experienced it (Karp, 1996). The manifestation and experience of depression is unique to each person and to construct depression using operational definitions and objective analytic procedures fails to convey the range and extent of suffering experienced by people with depression (Ellis, 1995; Tavris, 1992). In support of this claim Barker (1992) suggests that the negative feelings one suffers as a result of depression are unimaginable to those who have not experienced it and have a significant effect on social adjustment and role functioning markedly decreasing an individual's quality of life.

Real life accounts of depression also highlight of the adverse affect of depression beyond the individual. Gottlib and Hammen (1992) argue that due to its intangible nature depression can appear irrational to others making it hard for friends and family to understand and accommodate the person's changing behaviour. This can lead to interpersonal conflict and tension which has a detrimental affect on marital and sexual relationships. Likewise, living with or having to care for a person with depression has been shown to have a significant impact on a person's social networks, ability to work, and economic health (Ellis, 1995).

Attempts have been made to understand experiential accounts of depression using a range of technical concepts. Most recently the concept of explanatory models has been applied to this area of study. Although this concept has been used in the medical literature for over twenty years it has only recently received attention as a useful way of explaining lay attitudes towards mental illness such as depression (Jorm, 2000). Explanatory models which originated from the field of medical sociology are defined by Pill, Prior, & Wood (2001) as a particular set of ideas and beliefs spontaneously adopted by an individual in order to understand and deal with a current episode of illness. Explanatory models inform the way an individual identifies, expresses and explains the causes of their illness, as well as how this information is conveyed to others. It is proposed that explanatory models emerge from a person's lived experience and are therefore idiosyncratic and changeable, heavily influenced by both personality and cultural factors, evolve over time, and are

specific to the circumstances in which they are employed. Recent research has promoted this concept as a useful way of explaining the attitudes and beliefs held by people that are barriers to effective and timely treatment for depression (Jorm, 2000).

Summary.

Research has shown that depression is the most prevalent mental disorder in the world and that by 2020 major depression will be second only to ischemic heart disease in the level of disability experienced by sufferers. The current literature identifies three formulations of depression; as a categorical entity, as a dimensional construct, and as a syndrome. Each of these constructions places a different emphasis on the way depression is understood and measured.

As a categorical entity depression is viewed as qualitatively different to the normal human experience, and can be identified by the presence of specific behavioural indicators for a certain period of time. Assessing depression in this manner is an inductive process in which information is gathered by a trained professional regarding the presence of the diagnostic symptoms.

As a dimension of mood it is assumed that depression exists on a continuum of the normal human emotional experience. Formulating depression in this manner takes the affective experience of depression as the focus of study. Accordingly the assessment procedures aim to explore a respondent's internal emotional state.

Constructing depression as a syndrome views depression as it relates to other social and behavioural problems an individual is experiencing. It is believed that by examining the individual within a number of social settings a picture of an individual's depression will emerge.

It is important to acknowledge experiential accounts of depression. Examining this body of literature highlights the following points. The experience of depression is unique to each individual and has a substantial impact on their quality of life. Furthermore, the negative effects of depression extend beyond the individual to the people around them and to the whole of society. Attempts have been made to understand experiential accounts of depression using technical concepts. One concept that has recently been applied to the study of depression is the concept of explanatory models.

The remaining chapters in this literature review will explore the existing literature on masculine depression. Chapter two will describe the data collection procedures that have been used to examine the relationship between gender and depression and will identify the social and political issues that influence this topic of inquiry. Chapter three will identify the differences in depression between male and females and in doing so will provide a clinical profile of depression in men. Chapter four will begin by outlining the biological and psychological theories that have been used to explain depression in men. This chapter will conclude by highlighting the limitations in the current literature on male depression and will introduce the aims and objectives of the present study.

CHAPTER TWO

GENDER AND DEPRESSION RESEARCH: METHODOLOGICAL AND POLITICAL ISSUES.

Studies examining the relationship between gender and depression are influenced by a unique combination of methodological issues and social pressures. For research in this area to be reviewed in an informed manner it is important these issues are identified and explored.

Methodological Issues.

Researchers have used two sources of data to examine gender differences in depression: clinical records of people treated with depression and surveys of the general population.

Clinical data.

Traditionally, data used to examine the relationship between gender and depression came from clinical records of people who have been treated with an affective disorder (Busfield, 1996). This form of data is typically presented within a system of official diagnostic classifications made by a qualified clinician based on the assessment of individual cases. In general, clinical data offers researchers a solid foundation on which claims regarding gender and depression can be made. Clinical data is highly comprehensive, has a high degree of construct validity and is presented in a format that lends itself to statistical analysis (Nolen-Hoeksema, 1987).

The utility of such data is limited by the small amount of clinical data available. The generation of clinical data requires extensive clinical training and resources and so there is a limited amount of clinical data available for analysis. In addition this technique relies on a strict categorical diagnosis of depression, which tends to exclude those who present with atypical signs of depression, masked depression and those who suffer from depression but who have not yet been identified. Factors such as socioeconomic status, geographic setting, and sex role stereotypes have also been shown to influence help seeking behaviour and raise concerns regarding the generalisability of research using clinical data (Razali, 1999).

Evidence of systematic gender biases in the diagnosis of depression has contributed to this problem. Studies have shown that clinicians tend to consider women depressed, even when the client does not meet the diagnostic criteria (Potts, Burman, Wells, 1991). These researchers conclude that there is a tendency to view depression as a women's disorder and that this has led to the under representation of men in clinical populations.

Community surveys.

In response to the limited availability of clinical data and the development of self-report measures of depression, researchers began to use community surveys to examine the relationship between gender and depression (Nolen-Hoeksema, & Girgus, 1994). This research methodology involves the administration of self-report measures to a sample of respondents selected from the general population. Compared with clinical records, community surveys offer a more efficient means of data collection by allowing researchers to gather large amounts of data quickly from respondents in a range of different settings. Because of this most studies which have examined gender differences in depression have employed this technique (Nolen-Hoeksema, 1990).

The weaknesses of this approach reflect the inadequacies of using self-report instruments to identify depression in a normative population. By virtue of being easily administered, without the use of a trained clinician, self-report measures do not offer a comprehensive assessment of a respondent's behaviour. Typically self-report measures are scored on an additive basis with the total score representing the degree of mental disorder along a single continuum. In addition, self-report measures only include a selective set of symptoms with a small number of items per symptom. These features make a categorical diagnosis of depression impossible, as any attempt to set a cut off score would be arbitrary. Self-report measures also rely on the respondent to accurately report their behaviour and internal mood state and are therefore dependent on the respondent's level of self-awareness and ability to remember depressive symptoms over time. This becomes problematic when working with depressive respondents as studies have shown that negative affect can cloud a person's memories and cause negative bias when recalling events (Ottosson, Grann, & Kullgren, 2000). There is also evidence that response bias factors influence this type of data. In particular the social undesirability of having psychiatric symptoms (Busfield, 1996).

Combining data.

Due to the inherent strengths and weaknesses of these data collection techniques, researchers have made attempts to combine both forms of data when making claims regarding the relationship between depression and gender.

Combining these two forms of data was traditionally done using a narrative methodology. For the most part this is an informal procedure which relies on the researcher making arbitrary conclusion when comparing the results of different studies and does not account for the qualitative differences in the structure and content of community surveys compared to clinical data (Nolen-Hoeksema, 1994). The development of meta-analytic techniques has led to advances in this area. Meta-analysis is a statistical technique by which a study is compared with others in terms of effect size. The effect size standardises the results of a study in relation to the study's standard deviation (Rosenthal, 1991). This has allowed researchers to objectively compare the findings of clinical and non-clinical studies that have employed different measures in examining sex differences in depression.

Despite these advances, Tennen, Hall, and Affleck (1995) argue that the quality of a review is still dependent on the validity of the studies included in the analysis. These researchers suggest minimum standards of methodological rigor when selecting studies to review. These include having multiple assessment methods and testing times as well as control groups selected on appropriateness rather than convenience. It is also important that researchers report the criteria they used to select the studies. This may include minimum sample sizes, and standardised selection and testing criteria.

The practice of combining clinical data with data collected from community surveys has raised concerns regarding the comparability of clinical and sub-clinical levels of depression. Studies have identified significant qualitative differences between these levels of depression, such as the absence of somatic complaints in cases of mild depression (Compas, et al., 1993). Research has also found that some gender differences in depression are more applicable either to moderate levels of depression or to severe levels of depression (Nolen-Hoeksema, 1987). In response to these findings some researchers have argued that gender differences in clinical and sub-clinical levels of depression should be reviewed as separate topics of inquiry (Nolen-Hoeksema, 1990).

Social and Political Pressures.

Whenever research concerning the differences or similarities between men and women are published there is controversy. This is because research comparing the sexes tends to make assumptions regarding the general nature of females, males and society as a whole (Eagly, 1995).

Although psychologists have studied gender differences in psychological disorders since the turn of the century (Anastasi, 1958; Garai, & Scheinfeld, 1968) it wasn't until the 1970s and the feminist movement that research on gender and depression came up against public scrutiny. As well as raising social awareness of gender issues and instigating social changes the feminist movement evolved into an intellectual movement questioning the validity of previous research and pressuring researchers to clarify the psychological differences between males and females (Bernard, 1974).

A significant piece of research during this period was Maccoby and Jacklins (1974) book The Psychology of Sex Differences. Maccoby and Jacklins (1974) book brought together most of the existing research that had compared the sexes across a wide range of psychological constructs. Their review concluded that the two sexes differed in a range of intellectual abilities including verbal, quantitative, and spatial abilities and a range of social behaviours such as aggression, but were very similar in almost all other areas. Although Maccoby and Jacklins (1974) employed narrative methods to make comparisons between the studies which has provoked some criticism the issues raised by this study are still relevant today (Eagly 1995).

More recently concerns have been raised regarding the social pressures placed on researchers by the feminist movement. A retrospective analysis of this data shows bias towards finding small and unstable differences between the sexes. In addition it was believed that research which found gender differences suffered from methodological problems and/or reflected traditional gender stereotypes and other social artifacts (Eagly, 1995). Hare-Mustin and Marecek (1988) describe two forms of bias that are evident in this research. There was a tendency to exaggerate differences between the sexes that were deemed positive and to minimise differences that reflected negatively on females. These were labeled the alpha and beta biases respectively. With such controversy in this area some researchers have suggested that research into gender differences is inherently biased and should be discouraged

(Ashmore, 1990; Baumeister, 1988). However, Eagly (1995) believes that the study of gender differences has significantly contributed to understanding psychopathology and will always be a central topic of human inquiry.

Summary.

When reviewing the literature a number of issues have to be kept in mind. Researchers have used two research methodologies to examine gender differences in depression. These can be placed at opposite ends of a quality/quantity continuum. Clinical records offer a source of data that is comprehensive and congruent with the biomedical model of depression but has limited generalisability due to the small amount of data available. Community surveys on the other hand offer an efficient method of gathering data from large numbers of respondents but have limitations in relation to the employment of self-report measures to identify depressive symptomatology in a normative population. These include social desirability response bias, biases in the recall of individuals with depression, and the inability to offer a categorical diagnosis of depression. Combining these research techniques in a review overcomes some of these limitations but raises concerns regarding the comparability of clinical and non clinical data. Meta-analysis has led to advances in this area by offering an objective means of reviewing such data. Despite this advance the quality of a review is still dependent on the validity of the individual studies.

The social and political pressures associated with research on gender differences originated from the feminist movement in the 1970s. The feminist movement prompted an increase in social awareness of gender differences in psychology and led to a large amount of literature being developed. More recently some researchers have identified biases in this research which discouraged researchers from reporting gender differences in psychological constructs reflecting poorly on females. This has led some researchers to suggest that research examining gender differences is inherently biased and should be discouraged.

CHAPTER THREE

GENDER DIFFERENCES IN DEPRESSION.

Research has shown significant gender differences in the clinical manifestations of unipolar depression. These include differences in rates of depression; course related variables; symptoms and expression; rates of suicide; comorbidity; and treatment outcomes. This chapter will present the main clinical findings in this area and in doing so will highlight the distinct clinical features of masculine depression.

Prevalence Rates of Depression.

A large body of research has been devoted to measuring the prevalence of male and female rates of depression. Culberston (1997) reviewed the literature which examined research in this area over the past 30 years including World Health Organisation publications from 1973 to 1995, the National Institute of Mental Health Depression Awareness, Recognition and Treatment Program (1987), psychiatric research performed by Weissman and Klerman (1977; Klerman & Weissman, 1989), a task force report by the American Psychological Association (McGrath, Keita, Strickland, & Russo, 1990), research conducted by Nolen-Hoeksema (1990, 1993), publications by the Depression Guideline Panel and the Agency for Health Care policy and Research, and the National Comorbidity Study (Kessler, McGonagle, and Zhao 1994). Culberston's review showed that on average males tend to be diagnosed with unipolar depression at half the rate of females. This is considered one of the most robust findings in psychology today as it has been shown using different research designs, as well as inpatient and community based samples (Wolpert, 1999; Kornstein, 1997).

The Christchurch Epidemiological Study is the most recent study to examine gender rates of depression in New Zealand (Wells, Bushnell, Hornblow, Joyce, & Oakley-Brown, 1989; Oakley-Brown, Joyce, Wells, Bushnell, and Hornblow, 1989). Using the diagnostic interview schedule (DIS) this study measured the twelve-month and lifetime prevalence of a range of psychiatric disorders in a community based sample. The researchers found that the ratio of depressed females to males was just

over 2:1. This is comparable to studies which have used the DIS in other countries including America (Robins, Helzer, Croughan, & Ratcliff, 1981) South America (Karno, et al., 1987; Canino, et al., 1987), and Canada (Bland, & Newman, & Orn, 1988).

Early research suggested that this phenomenon was limited to developed countries. Weissman and Klerman (1977) conducted research using data from Puerto Rican, Mexican, and Korean populations' along with a number of developed countries and found that in the developing countries there was no predominance of depression or suicide attempts in the female respondents. Research by Orley, Blitt, and Wing (1979) supported this finding. Using a sample from two Ugandan villages, these researchers found depressed males outnumbered their female counterparts. Nolen-Hoeksema (1990) suggests that this early research is confounded by artifactual variables such as unreliable diagnostic criteria and the inability of women to access health care in developing countries. To clarify this issue the World Health Organisation is currently developing cross cultural measures of depression so more reliable information can be collected from non-western countries (Sartorius, 1993). These include the Composite International Diagnostic Interview, the Schedules for Clinical Assessment in Neuropsychiatry, and the International Personality Disorder Examination (Sartorius, 1989; Loranger, et al., 1994).

Gender differences in rates of depression have been shown to vary across the life span. Cross sectional research indicates that the predominance of depression in females begins around the age of puberty and declines after menopause (Lewinsohn, Hops, Roberts, Seely, & Andrews, 1993; Silberg, et al., 1999; Angold, Costello, Worthman, 1998). Around the age of 13 the female rate of depression increases sharply, peaking in the early twenties and then gradually declines throughout the life span. The rate of male depression also increases during adolescence but at a later age and at a slower rate. It too peaks in the early twenties but then stays constant throughout the life span.

There has been debate over the age at which these sex differences first arise. Some studies have reported sex differences in populations as young as 11 (Allgood-Merten, Lewinsohn, & Hops, 1990; Girgus, Nolen-Hoeksema, & Seligman, 1989, cited in Nolen-Hoeksema, & Girgus, 1994) while other researchers suggest there is no difference until the age of 14-15 (Peterson, Sarigiani, & Kennedy, 1991). A study by Hankin et al. (1998) examined the emergence of gender differences in adolescents

using a ten-year longitudinal study. Their researcher found that sex differences emerge between the ages of 13 and 15 with the greatest increase occurring between the ages of 15 and 18.

The difference in gender rates of depression has also been shown to vary across cohorts. Since World War Two rates of depression have increased whilst the difference between male and female rates of depression has slightly decreased from 2/3:1 in the 1950s down to 1.7:1 in the early 1990s (Kessler, et al., 1994). It has been suggested that the main contributing factor to this change is the increase in rate of depression in males between the ages of 20 and 30 over the past 20 years (Kessler, 1994; Reinherz, Frost, & Bilge, 1991).

Course Related Variables.

Under the guise course related variables psychologists have examined three inter-related constructs. These are duration/recovery time, reoccurrence rate, and intensity of the depressive episodes.

According to Simpson, Nee, and Endicott (1997) research examining sex differences in the duration and recovery time is difficult to summarise. A number of articles have shown that females are more likely to suffer reoccurrence and recover more slowly from depressive episodes than males (Lewinsohn, Zeiss, & Duncan, 1989; Winokur, Coryell, Keller, Endicott, & Akiskal, 1993; Frank, Carpenter, & Kupfer, 1988) while other studies have found similar patterns of duration and recovery time (Amenson, Lewinsohn, 1981; Kessler, McGonagle, Swartz, Blazer, & Nelson, 1993; Coryell, Endicott, Keller, 1991). Nolen-Hoeksema (1987) suggests that these inconsistencies are in part due to methodological differences between studies. These include differences in research methodologies, sample types, follow up periods, and most notably definitions of duration and recovery. While some studies used diagnostic criteria to define the duration and recovery periods, other studies have used cut off scores on self-report measures.

Research exploring gender differences in reoccurrence rates of depression shows more consistency. Studies have consistently shown that females with a history of depression are more likely to suffer from it in the future than their male counterparts (Kessler, et al., 1993; Coryell, et al., 1991; Lewinsohn, Zeiss, Duncan, 1989). Using a longitudinal study, Simpson, Nee, and Endicott (1997) found that over

five years the rate of reoccurrence between males and females was comparable while after fifteen years the rate of female reoccurrence was significantly greater than their male counterparts.

Research examining sex differences in the intensity of depression has reported no significant differences between males and females. This finding has been found in clinical as well as sub-clinical populations (Jorm, 1987) using both self-report measures (Simpson, Nee, & Endicott, 1997) and practitioner rated measures of intensity (Amenson, & Lewinsohn, 1981; Frank, et al., 1988).

Symptoms/ Expression.

Research has consistently shown that gender influences the way an individual presents with depression (Kornstein, 1997). Studies have shown that while both males and females experience a number of common symptoms of depression males tend to express depression congruent with the masculine stereotype, while females tend to present symptoms congruent with the female idiom. Data from both clinical (Frank, et al., 1988) and non clinical research (Kleinke, Staneski, & Mason, 1982) has shown females present with high levels of crying spells, somatic symptoms, and body image problems, eating problems and self castigations, while males present with high levels of anger and hostility, substance abuse, aggressiveness, problems in work situations, and sexual problems (Reissman, 1990; Vredenberg, Krames, & Flett, 1986; Avison, & McAlpine, 1992; Perugi, et al., 1990; Young, Fogg, Scheftner, Keller, & Fawcett, 1990).

Based on these differences studies have attempted to identify specific clusters of symptoms that reliably differentiate males and females with depression. Using measures based on the DSM III-R criteria Silverstein, Caceres, Perdue, and Cimarolli (1995) found that the following cluster of symptoms was particular to depressed females: high rates of depression combined with anxiety symptoms; several somatic complaints such as head aches and breathing difficulty; disordered eating; poor body image; and high rates of insomnia. The researchers labelled this cluster anxious somatic depression and although some males presented with this cluster of symptoms females were very unlikely to present without these symptoms.

Research examining the expression of depression in men has shown that men tend to express depression using a range of physical and behavioural phenomena with little reference to internal mood. This has been referred to as 'masked depression', 'depressive equivalent', and 'covert depression' by the literature. These terms have been defined using both exclusive and inclusive approaches. Exclusive approaches seek to identify depression underlying only vegetative, physical, and somatic complaints. Inclusive approaches on the other hand, identify a wide range of problems as expressions of depression. These include alcohol and substance abuse, delinquency, anger and aggressive behaviour, self injurious behaviour (Cochran, & Rabinowitz, 2000), as well as changes in interpersonal problems such as withdrawal, indecisiveness, and irritability (Williamson, 1987; Barbee, 1996).

Empirical support for masked depression as a subtype of depression has been mixed. Research supporting the use of this construct has shown that the treatment of anger in depressed males has a positive effect on mood (Albritton, & Borison, 1995). Likewise, in a study of 46 males manifesting antisocial behaviour, 39 reported depressive symtomatology including lowered self esteem, high levels of guilt, and cognitive impairment (Harper, & Kelly, 1985). A study by Stoudemire, et al. (1985) using a sample of psychiatric inpatients found that on admission 17% were diagnosed with depression. However, after a complete psychiatric assessment over 50% were diagnosed with depression. The widespread acceptance of masked depression has been limited by complex relationships between depressive and vegetative components in a range of problems proposed to be expressions of masked depression. These include insomnia (Flemming, 1993), cardiovascular disease (Lesperance, Frasure-Smith, & Talajic, 1996), and chronic pain (Magni, 1987). This has led to a difficulty in operationalising masked depression and has resulted in its exclusion from diagnostic and research categories.

Suicide.

The rate of suicide is one of the most salient differences between male and female depressives. Epidemiological research has estimated that males are six to eight times more likely to complete suicide than females (Cochran, & Rabinowitz, 2000; Isometsa, Henriksson, & Aro, 1994). Research in New Zealand supports these

findings but to a lesser degree. Data collected in 1998 showed that the male/female gender ratio for completed suicides in New Zealand was 4:1 (New Zealand health Information Services, 2001).

It has been suggested that the disparity between the rate of male and female suicide can be explained by the different methods of suicide used by these groups. Males tend to employ firearms, hanging, and car related incidents. These methods are more immediate and potent than methods commonly employed by females such as taking overdoses of drugs or drowning which take longer and offer a greater chance of being discovered (Langhinrichsen-Rohling, et al., 1998).

Comorbidity.

Prominent epidemiological studies such as the National Comorbidity study (Blazer, et al., 1994) and the Epidemiologic Catchment Area study (Regier, Burke, & Burke, 1990) have shown that depressed women have significantly higher rates of comorbidity than men. Although there is little difference between the rate of male and female dual diagnosis, women are significantly more likely than men to be diagnosed with three or more disorders (Kessler et al., 1994). In particular, women are twice (Wilhelm, Parker, & Hadzi-Pavlovic, 1997) to six times (Joiner, & Blablock, 1995) more likely than men to be diagnosed with comorbid anxiety and eating disorders while males have higher rates of comorbid substance abuse and dependence than women (Fava, Abraham, Alpert, & Nierenberg 1990; Kornstein, 1997; Regier, et al., 1990).

Research by Hanna, and Grant (1997) shows that the distribution of male alcohol abuse and female depression almost mirrors each other. In response to this data some researchers have suggested that alcohol abuse in males is the psychological equivalent of depression in females (Busfield, 1996). However, this idea has received little empirical support. Wolfgang, Lichtermann, and Minges (1994) examined the genetic relationship between unipolar depression and alcoholism using family members of patients with depression, alcoholism or both disorders. When this sample was compared to un-screened probands from the general population the researchers found that these two disorders occurred independently across both sexes. Researchers have also suggested that a separate depression/anxious classification is made in the

DSM-IV to accurately identify this pattern of comorbidity in women but this too has received limited support (Joiner, & Blablock, 1995).

Sex differences have also been found in the comorbidity of axis II disorders. Depressed males have significantly higher rates of narcissistic, antisocial, and obsessive-compulsive personality disorders while females tend to have higher rates of comorbid borderline personality disorder (Golomb, Fava, Abraham, & Rosenbaum, 1995; Jackson, Rudd, Gazis, & Edwards, 1991).

Treatment.

Congruent with the disparity between male and female prevalence rates of depression, half as many males as females use treatment programs for depression (Cochran, Rabinowitz, 2000). There are a number of significant differences in the way males and females respond to different forms of treatment.

Research examining sex differences in the pharmacodynamic treatment have found significant differences in drug absorption rates, distribution rates and drug metabolism between males and females (Yonkers, Kando, Cole, & Blumenthal, 1992). The clinical implications of these biological differences are that females tend to experience longer half lives of drugs than men, with higher drug toxicity and more side effects if given the same doses of antidepressants (Hamilton, Grant, & Jensvold, 1996). With significant differences in the way males and females respond to antidepressants there has been a push to identify which medications are more beneficial for each sex. Steiner, et al. (1993; cited in Kornstein, 1997) summarised research in this area and concludes that in general males respond better to pharmacotherapy than women and that women respond better to selective serotonin re-uptake inhibitors than tricyclic medication.

A significant body of research has been devoted to examining gender differences in the employment and effectiveness of electro-convulsive shock therapy (ECT). Women tend to have lower seizure thresholds than males (Sackeim, Portnoy, & Neely, 1986) and tend to experience fewer cognitive side effects after right unilateral ECT. There seem to be no significant differences in the overall effectiveness of ECT for men and women though (McCall, et al, 1993).

The literature on sex differences in the effectiveness of psychotherapuetic techniques is sparse, as research in this area is limited by the low proportion of males

who use psychotherapeutic treatment programs. Studies have shown that in general males tend to overuse pharmacological treatments for depression and are underrepresented in psychotherapeutic treatment programs (Meth, & Pasik, 1990). Research in this area is also limited to examining sex differences in cognitive behavioural therapy (CBT) as it is one of the few treatment protocols that lends itself to objective outcome indicators. Findings from the National Institute of Mental Health Treatment of Depression Collaborative Research Program (Elkin, et al., 1989) indicate that sex is not a predictor of response in CBT or interpersonal psychotherapy treatment protocols. This study did show however that men tended to be less compliant when keeping appointments and were more likely to end treatment early than women. This finding has been supported by more recent research (Thase, et al., 1994; Jarrett, Eaves, & Grannemann, 1991).

A study by Frank (et .al, 1988) examined the sex differences in a treatment protocol which combined pharmacotherapy as well as psychotherapy. They concluded that males tended to respond better to the combined therapies than women but both sexes had better outcomes than if each therapy was used separately.

Summary.

This review has shown that there are significant differences between male and female depression and has identified a number of distinct clinical features of depression in men.

On average males are diagnosed with depression at half the rate of females. This difference is one of the most robust findings in psychology today as it has been shown across time and in different cultures including New Zealand. This difference becomes evident in early adolescence and drops off in late adult hood. Recently research has shown that this ratio is slowly decreasing. This is due to an increase in the rate of depression in males aged between 20 and 30 over the past two decades.

Longitudinal studies examining gender differences in the course of depression have shown that males tend to recover more quickly from episodes of depression and are less likely to suffer from future episodes than females. No gender differences in the intensity or duration of depressive episodes are evident in the existing research.

Research has consistently shown that males tend to show depressive symptoms congruent with the masculine stereotype, while females tend to present

symptoms congruent with the female idiom. Compared to females males tend to present with higher levels of anger and hostility, substance abuse, aggressiveness, as well as interpersonal and sexual problems. This has been referred to as 'masked depression', 'depressive equivalent', and 'covert depression' by the literature.

Gender difference in suicide completion is one of the most salient differences between male and female depressives. Although females attempt suicide more than males, men are six to eight times more likely to complete suicide than females.

Research has shown that on average males have lower rates of comorbidity than females. The most common comorbid disorder for males is substance abuse while females are more likely to receive a dual diagnosis of an anxiety disorder. In relation to axis two disorders a small body of research has shown that males are more likely to be diagnosed with antisocial, narcissistic, and obsessive compulsive disorder than females.

The low rate of males diagnosed with depression is reflected in the low rate of males in treatment programs for depression. Psychokinetic differences have been shown between males and females in relation to absorption rates, half-life and in the metabolism of antidepressant medication. Research examining gender differences in psychotherapeutic techniques have shown that males are more likely to terminate treatment early and are less compliant when keeping appointments. Research has also shown that males tend to over use pharmacological means of treating depression and are under represented in psychotherapeutic treatment programs.

CHAPTER FOUR

BIOLOGICAL AND PSYCHOLOGICAL THEORIES OF MASCULINE DEPRESSION.

The previous section showed there are significant differences in the way males and females experience depression. Due to the predominance of females with depression few attempts have been made to parcel out the etiological processes specific to depression in men (Cochran, & Rabinowitz, 2000). The first part of this section will review theories of depression which have been advanced to explain depression in men. The second part will identify the limitations of the current research on masculine depression and will introduce the aims and objectives of the present study. This section will begin with an examination of the stress-diathesis paradigm as an integrative approach to understanding depression.

Stress Diathesis Model.

A central issue to the study of depression is whether depression is better understood as a result of internal dysfunction or as a reaction to external stimuli. At this stage it is believed that both stressful life events and biological dysfunction hold a substantial causal relationship with depression (Kendler, & Prescott, 1999). This has led theorists to promote the stress-diathesis paradigm.

The main proposition of the stress-diathesis approach is that depression is caused by an environmental stressor triggering an internal predisposition to depression. The predisposition may be biological such as a genetic heritability or psychological, in the form of a set of cognitive schemata learned early in childhood. The stress-diathesis model has three important elements. Depression is caused by more than one factor in that both the diathesis and the stress are necessary in the development of depression. Secondly, it is unlikely that depression can be related to the interaction of one stressful event and one predisposition. The development of depression is likely to be embedded in a network of predispositions and stressors. Thirdly, the inconsistencies between different paradigms reflect differences in the level of description and can be combined under the stress diathesis paradigm.

Over all the Stress diathesis paradigm has received wide spread acceptance as an integrative way of studying depression which recognises the role of biological psychological and social variables in its development.

Biological Explanations.

The biogenic amine hypothesis.

The biogenic amine hypothesis postulates that depression is caused by an imbalance in a specific group of neurotransmitters called biogenic amines. This theory is supported by a large body of literature showing that artificially elevating cerebral levels of dopamine, norepinephrine and epinephrine, three closely related biogenic amines known as catecholamines, relieves the symptoms of depression.

At this stage the homeostatic mechanism by which lowered levels of catecholamines cause depression is not fully understood. Studies have shown that the relationship between lowered catecholamines and depression may be indirect (Schwartz, & Schwartz, 1993). Medication which raises cerebral levels of catecholamines such as tricyclics (TCAs) and monoamine oxidase inhibitors (MAOIs) alter the transmission of catecholamines in the brain rapidly, sometimes within hours yet it can take up to four weeks for a person's depression to ease. It has been proposed that the increase in catecholamine release caused by TCAs and MAOIs causes a down regulation of catecholamine receptors on the neurone. Studies have also shown that neurones are often capable of releasing more than one neurotransmitter and can have receptor sites sensitive to a number of neurotransmitters. These findings have led researchers to hypothesise that the interactions of a number of neurotransmitter/receptor site combinations are involved in the development and maintenance of depression, and to identify the specific brain chemicals involved in this process (Koslow, & Gaist, 1987).

Studies have shown that people with depression tend to have lower levels of the norepinephrine metabolite 3-methoxy-4-hydroxyphenylglycol (MHPG) and the serotonin metabolite 5-hydroxyindoleacetic acid (5-HIAA) than non depressed people (Kaplan, & Sadock, 1998). The etiological significance of low levels of serotonin and norepinephrine has been supported by the effectiveness of second generation antidepressant medication such as fluoxetine and Roboxetine. These drugs

selectively prevent the reuptake of serotonin and norepinephrine respectively. This medication is more selective than TCAs and MAOIs and has been shown to have positive effects on both mood and social functioning with fewer side effects (Venditti, et al., 2000).

There has also been interest in the role of dopamine in the development of depression. Research has found low levels of homovanillic acid, the metabolite of dopamine, in people with depression compared to healthy controls (Schwartz, & Schwartz, 1993). This has recently led to the trial of drugs such as bupropion, which inhibit the re-uptake of dopamine at the synaptic cleft (Lambert, Johansen, Argent, & Friberg, 2000).

Acetylcholine has also being implicated with depression through its role in the regulation of REM sleep (Shiromani, Gillin, & Henriksen, 1987). Depression is frequently characterised by sleep disturbance especially early morning awakening and abnormal patterns of REM sleep. Unfortunately at this stage the role of acetylcholine in the development of depression is unclear, as it is impossible to obtain accurate non-invasive measures of acetylcholine (Thase, Frank, & Kupfer, 1985).

Current research examining the neurochemical nature of depression is aimed at clarifying the effects of these neurotransmitters on specific post-synaptic receptor sites. This research demands that new methodologies are developed which allow post-synaptic receptor activity to be studied in humans as most current knowledge of the functioning of receptors has come from animal studies. It is possible that this research will allow researchers to examine gender differences in the chemical nature of depression, and examine the specific chemical nature of it in men.

The neuroendocrine system.

Two neuroendocrine systems have been linked to the development of depression. These are the hypothalamic-pituitary-adrenal (HPA) axis and the hypothalamalic-pituitary-thyroid (HPT) axis.

The hypothalamus is situated in the limbic area of the brain, which is closely linked to mood. The hypothalamus regulates functions such as sleep, appetite, and adaptation to stress and controls the secretions of a number of endocrine glands. The HPA axis begins with the secretion of thyrotropin by the hypothalamus. This causes the secretion of adrenocorticotropic hormone (ACTH) by the pituitary gland. In turn

ACTH controls secretions of cortisol by the adrenal glands. The hypothalamus monitors the level of cortisol in the blood and regulates the release of thyrotropin accordingly. An over activity of the HPA axis has been associated with the vegetative symptoms of depression such as sleep and appetite disturbances as well as lowering the density of serotonin receptors in the brain (Roy, Everett, Pikar, & Paul, 1987; Checkley, 1996). Support for the role of The HPA axis in the development of depression has come from the dexamethasone suppression test. Dexamethasone is a form of synthetic cortisol. When administered orally dexamethasone causes the hypothalamus to down regulate the release of thyrotropin, lowering the level of ACTH released by the pituitary gland and the levels of cortisol released by the adrenal glands. In many people with depression dexamethasone fails to suppress the release of thyrotropin keeping cortisol levels high (Andreasen, 1984).

A number of studies have shown that the HPA axis is less sensitive in boys than girls. In controlled conditions boys present with lower levels of blood cortisol and perceived stress than girls under conditions of extreme uncertainty and novelty (Susman, Dorn, Inoff-Germain, Nottelman, & Chrousos, 1997). It is believed that these differences are possibly due to the modulating role of gonadal hormones on this axis (Weiss, Longhurst, & Mazure, 1999). Research by Halbreich and Lumley, (1993) showed that age mediated this relationship with this difference decreasing with age, making it unlikely to be the sole explanation of sex differences in depression and difficult to differentiate the role of this axis in the development of male depression.

The hypothalamalic-pituitary-thyroid (HPT) axis has also been implicated in the development of depression with 25% of depressed people having abnormalities of this axis (Grinspoon, & Bakalar, 1990). The HPT axis controls the rate of metabolism in every cell in the body and regulates such things as growth, body temperature and pulse. The HPT functions in a similar way to the HPA axis in that specific messages from the body signal the hypothalamus to release thyrotropin releasing factor (TRF). This stimulates the release of thyrotropin by the pituitary gland, which in turn stimulates the thyroid gland. In depressed people it is believed that there is an insufficient supply of thyroxine secreted by the thyroid gland, leading to a decrease in the rate of metabolism and a decrease in mood. The role of the HPT axis has been supported by research examining the therapeutic effects of altering the functioning of these systems. Artificially raising the levels of thyroxine or lowering the levels of cortisone has been associated with a rapid decline in depressive symptomatology

(Koeng, Hanger, van Hippel, Wolfersdorf, & Kaschka, 2000; Debathista, Posner, Kalehzan, & Schatzberg., 2000; Rudas, Schmitz, Pichler, & Baumgartner, 1999).

Although these abnormalities in the HPT axis are less common in males than females (Whybrow, 1995) gender differences found in the functioning of the HPT axis can hardly account for the observed gender differences in depression and make it difficult to identify its role in the development of male depression (Piccinelli, & Wilkinson, 2000).

Gonadal hormones.

The previous chapter indicated that gender differences in depression are confined to the reproductive life span. This finding has led researchers to examine the role of gonadal hormones in the development of depression. The majority of the research in this area has examined the relationship between the female reproductive cycle and depression. Reviewing this literature shows that there is inconclusive support for an association between fluctuations in female hormones and depression (Brems, 1995: Nolen-Hoeksema, 1990; Kornstein, 1997). As a result there has been increased interest in the relationship between male hormones and depression.

Studies have shown that testosterone may be inversely related to depression. A study by Yesavage, Davidson, Widrov, & Berger (1985) measured testosterone levels in a sample of depressed men. When severity of depression was controlled for, an inverse relationship between testosterone levels and depression was evident. This relationship has also been shown across treatment programs. By measuring testosterone levels in a sample of depressed men before and after treatment for depression, Steiger, von Bardeleben, Wiedemann, and Holsboer (1991) found that testosterone levels increased after the remission of depression. This hypothesis has been tentatively supported by data from testosterone replacement therapy programs. Studies by Rabkin, Wagner, & Rabkin (1998) in which a group of males with human immunodefiency virus were treated for symptomatic depression with testosterone replacement therapy have shown positive results. Testosterone replacement has also been used with five depressed men who did not respond to selective serotonin reuptake inhibitors (Seidman, & Rabkin, 1998).

Although such research provides support for a link between testosterone and depression, this data has to be reviewed with caution. The generalisability of these studies is limited by small samples. Furthermore, research which has directly

examined testosterone levels in depressed men has been inconclusive (Davis, et al., 1992). More research is required to specify whether testosterone has more than a mediating relationship to depression.

Genetic theories.

Using family, twin and adoption studies researchers have found an inherited component to depression (Wesner, & Winokur, 1990). McGuffin, Katz, Watkins, & Rutherford (1996) showed the concordance rate for dizygotic and monozygotic twins was 20% and 46% respectively. Likewise, first degree relatives of unipolar probands have been shown to have a small yet significantly higher than normal risk of developing depression (Sevy, Mendlewicz, & Mendelbaum, 1995). In order to partial out the effects of environmental conditions a small body of research has examined the concordance of depression in twins who have been separated at birth. A review of this research by Sullivan, et al. (2000) supports a genetic link in the transmission of depression beyond environmental influences. This finding is limited by the fact that only three studies were available for review.

The possibility of an inherited component to depression has encouraged researchers to search for genetic markers using linkage analysis. Several linkage markers have been associated with affective disorder. These include markers associated with the human leukocyte antigen system as well as the X chromosome. A review of this data shows only mild support for such links, with further research needed (McGuffin, & Sargeant, 1991).

Although there is a genetic vulnerability to depression, due to its heterogeneous nature, it is difficult to accurately quantify the contributions associated with each sex (Cochran, & Rabinowitz, 2000). A recent review of identical and fraternal twin studies by Hankin and Abramson (1999) concludes that genetic factors account for only a modest amount of the gender variance in depression. It has been argued that affective illness is linked to a dominant gene on the X chromosome and because females have two X-chromosomes they have increased genetic vulnerability to depression (Piccinelli, & Wilkinson, 2000). Based on this hypothesis one would predict that female offspring of a male proband are more likely to develop depression than male offspring. Likewise, one would predict that both male and female offspring of a female proband would be equally likely to develop depression as both sexes have an equal chance of receiving the X chromosome from the mother. Research exploring

patterns of transmission has shown this is not the case. In general, family history studies have found significantly more father son pairings than father daughter pairs of depression (Nolen-Hoeksema, 1987).

Researchers have also examined the possibility that depression develops from an aggregation of minor genetic abnormalities which interact with environmental variables. Known as the threshold liability model this theory postulates that both genetic and environmental risk factors for depression represent an individual's liability of developing depression and that to develop depression a persons liability has to be above a certain threshold (Cloninger, Christiansen, Reich, & Gottesman, 1978). Accordingly, it is believed that males have a higher threshold for developing depression than females. Since Cloninger and colleagues' initial research, this model has received little support, with research showing that the occurrence of depression seems to be independent from a proband's gender (Merikangas, Weissman, & Pauls, 1985).

It has been suggested that the lack of support for a genetic influence on gender differences in depression could be due to a flaw in this research. Previous studies have only examined whether gender moderates the relationship between gender and depression. Hankin and Abramson (1999) suggest that to accurately investigate the relationship between genes and gender differences in depression, researchers need to examine whether genetic factors mediate the emergence of gender differences in depression during adolescence. To date only one study has conducted such research, and found that a genetic liability combined with adverse life events was more evident in the onset of depression in adolescent twin girls than in boys (Silberg, et al., 1999).

Nutritional deficiencies.

A developing body of literature has been devoted to understanding the relationship between diet and depression. In particular the role of omega 3 (n-3), an essential fatty acids in the development and maintenance of depression.

It has been proposed that a deficiency in n-3 fatty acids and a low ratio of n-3 to n-6 fatty acids may be a factor in the development of depression (Edwards, Peet, Shay, and Horrobin, 1998). Changes in the content of these polyunsaturated fats in the phospholipid bilayer in the body's cell membranes alter cell membrane microstructure. This has a profound effect on neurotransmitter receptor functioning (Stubbs, 1992; Salem, & Niebylski, 1995). Clinical research has shown that depressed

people tend to have smaller amounts of n-3 fatty acids in serum cholesterol esters than people with minor depression and healthy controls (Maes, et al., 1996). In addition Adams (1996) reported a significant correlation between low levels of n-3 fatty acids in red blood cell phospholipids and severity of depression.

This relationship has also been supported by epidemiological research, which has shown that during the past century the rate of depression has significantly increased alongside a change in eating patterns away from foods rich in n-3 fatty acids towards foods rich in n-6 fatty acids (Eaton, & Konner, 1985; Leaf, & Weber, 1987). A rich source of n-3 fatty acids is fish. A cross national study by Hibbelin (1998) found a significant negative correlation between fish consumption and the incidence of major depression. New Zealand was included in this study and had one of the lowest rates of fish consumption per capita and one of the highest rates of depression.

At this stage there is no research available which supports a causal relationship between n-3 fatty acid deficiency and depression. Adams, Lawson, Sanigorski, & Sinclair (1996) suggest that there is enough evidence to warrant the initiation of a study examining the effect of an n-3 supplement on the severity of depression in a clinical population and to examine the function of gender on this relationship.

Psychological Explanations

Psychoanalytic theories.

The focus of early psychodynamic theories of depression came from the writings of Freud (1917) and Abraham (1911) who identified the close relationship between normal grieving and pathological depression. These theories became known as object-loss theories and proposed that the potential for depression is created in childhood. Early on in life a child's needs may be over or under met resulting in an over dependence on others for the maintenance of self-esteem. Loss later in life will be perceived as rejection and will result in feelings of hostility and anger. Under certain circumstances, hostility toward a lost object may be internalised causing the ego to divide against itself. Internalising anger is experienced as self-loathing, feelings of guilt and will damage an individual's self esteem.

Over time, there was a movement away from internal conflict to examine the role of external relationships in the development of depression. Klein (1935, 1975)

believed that an individual develops a predisposition to depression as a result of a problematic mother-child relationship in the first year of life. Klein (1935) proposed that if the mother was unable to instil feelings of being loved, the child would fail to achieve an optimal level of self esteem. This would lead to difficulty relating to love objects later in life, leading to depression. The belief that the mother-infant relationship was pertinent in the healthy development of the self became a corner stone of the object relations approach to understanding depression.

More recently, psychoanalytic theories have emphasised the role of social and cultural variables in the development of depression. This is reflected in the self-in-relation model of women's development, which is a merging of the feminist and psychoanalytic schools of thought. Recently this school of thought has been extended to the study of depression in males. This model conceptualises male depression as a natural reaction to cultural beliefs that devalue a male's need for an intimate relationship. Young boys like young girls have a propensity to form close interpersonal relationships. However, from an early age young boys are encouraged to be autonomous, leading to a premature detachment from the early caregiver relationship. The grief from this early loss is carried into adulthood as the tendency to avoid emotional states and a vulnerability to depression when confronted with relationship dissolution (Pollack, 1995). Although psychodynamic theories are difficult to validate, this research has the greatest relevance to the study of depression in men (Chochran, & Robinowitz, 2000).

Interpersonal theories.

Interpersonal theory's of depression are based on two assumptions, that depression develops as a result of disruptions in an individual's social relationships and the roles they fulfil in these relationships, and that current disruptions have roots in early dysfunctional relationships (Kaplan, & Sadock, 1998).

Central to the interpersonal paradigm is the belief that attachment to others plays an important role in psychological growth and development. Proponents of this approach believe that a predisposition develops early in life as a result of dysfunctional patterns of attachment with caregivers. It is through these early attachments that people develop working models of the self, the world, and the ability to develop interpersonal relations in the future. Insecure attachment between the caregiver and the child causes dysfunctional attachment cognitions to develop. This

predisposes one to depression later in life (Hammen, & Goodman-Brown, 1990). A study by Kessler and Magee (1993) supports this claim by showing that interpersonal disruptions such as relationship break ups, violence in the family, marital conflict, or family loss are related to depression later in life. This study also showed that the risk of developing depression as a result of personal disruption is dependent on the personal importance an individual attributed to that particular relationship. This theory has also been supported by research showing that people suffering from depression have difficulties developing and maintaining interpersonal relationships (Hammen, & Goodman-Brown, 1990). Depressed individuals tend to elicit more negative reactions from people and have an awkward interpersonal style, which promotes rejection from others.

The relevance of interpersonal theory's to male depression is highlighted by research examining the role of close interpersonal relationships with depression in men. Studies have shown that depression is significantly more common in non-married men than married men, making marriage and other close personal relationship a protective factor against depression for men (Beach, Sandeen, & O'Leary, 1990). In addition Merikanges, Prusoff, Kupfer, & Frank (1985) found that marital adjustment was significantly lower in depressed men than non-depressed controls.

Although interpersonal theories of depression are relevant to male depression, as a relatively new school of thought there are a considerable number of issues which need addressing. Hammen (1999) identifies the following themes in the current research which require further development. These include the extent to which depression vulnerability can be predicted from specific care taker-child patterns of interaction; the extent to which this predisposition is stable across time; how early attachment affect mate selection later on; and finally, how does one identify specific forms of depression which follow an interpersonal aetiology?

Learning theories.

The learning paradigm proposes that depression is a learned response from specific environmental stimuli (Rehm, 1990). Theorists have used the theory of learned hopelessness to explain this process (Abramson, Alloy, & Metalsky, 1995). The theory of learned hopelessness suggests that depression develops from overgeneralised feelings of passivity and a sense of being unable to control one's life. It is theorized that this is learned through specific negative experiences which an

individual has tried unsuccessfully to control, leading to both a decrease in the level of responding and the chance of receiving social reinforcement in the future (Abramson, Alloy, & Metalsky, 1995). The theory of learned hopelessness suggests that the interaction of both negative life events and depressogenic inferential styles are needed for the development of depression. Three inferential styles have been identified which predispose an individual to depression: the tendency to attribute negative events to stable and global causes; the tendency to perceive negative events as having many negative consequences; and the tendency to infer negative characteristics about the self when negative events occur (Abela, & Seligman, 2000). In the presence of negative life events these thought patterns will cause an individual to make depressive attributions about the causes and consequences of their behaviour and themselves, leading to a sense of hopelessness. Hopelessness is characterised by the expectation that negative events are likely to occur in the future and positive events are unlikely to occur, combined with the feeling that nothing can be done to control this, leading to the development and maintenance of depression.

A review by Metalsky, Joiner, Hardin, & Abramson, (1993) shows that while some studies have validated this theory as a possible cause of depression others have shown only mixed support. Attempts to develop this theory further have focussed on examining the validity of the diathesis-stress component of this theory and the interaction of specific inferential styles and negative life events in the development of depression.

In relation to male depression, studies have shown a relationship between the development of a negative attribution style and gender specific socialisation practices. Research suggests that in general females are socialised to be passive, dependent, non-assertive, and helpless, while males are instilled with a sense of mastery and competence. From birth boys are more freely and aggressively handled than girls who are more likely to be perceived as fragile and vulnerable. A literature review by Gurian (1987) showed the following discrepancies in gender socialisation: in the school environment girls tend to be rewarded for dependent behaviours while boys are rewarded for behaviours which are functional; boys who fail are encouraged to try harder while girls tend to be encouraged to stop trying; in general teachers react to boys' behaviour more than girls' behaviour, both positive and negative; and during adolescents boys are encouraged to be more outgoing and independent while females are encouraged to stay in the home and be close to the family. It is believed that these

practices lead to the development of negative attributional styles in women and a positive attributional style in men and in so doing provides a possible explanation for the different rates of depression in males and females (McGrath, Keita, Strickland, & Russo, 1991). It is possible that feminist beliefs regarding child rearing practices may however be changing this. This issue could be clarified by examining the development of a negative attribution style in relation to current child rearing practices.

Cognitive theories.

Cognitive theories of depression propose that depression is caused and maintained by maladaptive thought processes. One of the most influential cognitive theories of depression was developed by Aaron T Beck (1967). Beck's (1967) theory focuses on three interrelated concepts: the cognitive triad; cognitive distortions which lead to faulty information processing; and negative self-schemas.

Beck (1967) found that people suffering from depression held negative thoughts regarding themselves, the world and the future. Beck believed these thoughts were central to the cognitive experience of depression and labelled this pattern of thinking the cognitive triad. Beck proposed that the cognitive triad is responsible for all other depressive symptoms including disturbances in emotional, motivational, behavioural, and physiological functioning.

Beck (1967) believed that the emergence of the cognitive triad is a result of faulty thought processes. People affected by depression employ a number of faulty thought processes or cognitive distortions when they process information. Four negative schemata central to the development and maintenance of the negative triad are; arbitrary inferences: drawing a negative conclusion in the absence of supporting data; selective abstraction: focussing on detail out of context often at the expense of more salient information; overgeneralisation: drawing conclusions over a wide variety of things on the basis of single events; magnification/ minimisation: making errors in evaluating the importance and implications of events; and absolute, dichotomous thinking: thinking in polar opposites.

Beck (1967) used negative self-schemata to explain why depressed individuals maintain the negative triad despite contradictory evidence. A schema is a body of knowledge which affects the way new information is processed (Gotlib, & Hammen, 1992). A person acquires depressive schema regarding themselves, the world, and the

future early in life as a consequence of negative life events. These negative schemata stay with the person throughout life and bias the way information is processed. When a negative schema is activated, information from the environment will be interpreted in a way which is consistent with the schema, leading to biased information processing with an emphasis on negative events.

Beck's (1967) cognitive theory of depression has received widespread support and has been extensively applied to the treatment of depression (Blackburn, & Davidson, 1995). In therapy the cognitive triad will present as the client's automatic thoughts and core beliefs. Beck (1995) describes automatic thoughts as interpretations, ideas, and thoughts which seem to automatically come to mind with little effort and arrive without reflective reasoning. Core beliefs represent the deepest level of cognition and emerge as absolutistic statements about the self, others and the world (Greenberger, & Padesky, 1995).

The relevance of cognitive theories of depression to male depression was first identified by Nolen-Hoeksema and colleagues (1987, 1990) who examined gender differences in cognitive response styles. This research identified gender differences in cognitive thought patterns as a means of dealing with depression. These suggested that females tend to employ a ruminative response style, associated with thought patterns which selectively focus attention on the negative mood and individual shortcomings as its possible cause. Males favour a distractive response style defined by thought patterns that take focus away from the negative mood. This response style results in outwardly directed means of distraction which may be dangerous and self destructive, such as careless use of a motor vehicle and alcohol and drug abuse (Levit, 1991). The employment of a distractive response style has been found to relieve depression in the short term but may detrimentally affect long term improvement (Cochran, & Robinowitz, 2000).

The majority of recent research on the way people cope with psychological distress has been viewed using Moos and Schaefes (1993) integrated classification scheme. This has provided a more fine tuned method of examining data on gender differences in psychological coping styles as it allows the research to investigate differences across the behavioural/cognitive as well as approach/avoidance continuum. These researchers characterise approach strategies as coping techniques aimed at directly dealing with the situation or its aftermath. Avoidance strategies on the other hand are characterised by techniques that allow the individual to deny,

minimise, or detach themselves from the situation, and accept that the situation cannot be altered. The behavioural/cognitive continuum represents whether a person has used either overt behaviours or thought process to achieve these outcomes. A review by Blalock and Joiner (2000) of research using this method shows that males tend to utilise behavioural approach and cognitive approach strategies more than women, with the exception of alcohol and drug use which males commonly use as a behavioural avoidance strategy.

This body of research on cognitive coping strategies has yielded useful findings in developing an understanding of how males deal with feelings of depression and how males may cope with depression. This has prompted researchers to undertake research examining how a distractive response style may be associated with the suppression of depressive symptoms in men (Cochran, & Robinowitz, 2000).

Gender role theories.

Gender role theories of depression propose that gender governs various aspects of behaviour in both a positive and negative manner and that the strict adherence to traditional gender roles leads to negative psychological outcomes (Levant, 1996). The gender role strain paradigm originally formulated by Pleck (1981) provides a model for understanding the link between the traditional male stereotype and the development of depression.

The traditional masculine ideology is viewed as a socially constructed entity with a multidimensional nature. Levant, et al. (1992) identified seven aspects of the masculine ideology which have negative connotations: the requirement to avoid all things feminine; the injunction to restrict one's emotional life; the emphasis on toughness and aggression; the injunction to be self reliant; the emphasis on achieving status above all else; non relational, objectified attitudes towards sexuality; and fear and hatred of homosexuals. A strict adherence to this ideology leads to gender role strain, which can contribute to depression. Pleck (1995) identifies three types of gender role strain.

Discrepancy strain is based on the self-ideal self-paradigm and develops when an individual fails to live up to his internalised ideal of manhood. O'Neil, Good, and Holmes (1995) have examined this type of gender role strain using the Gender Role Conflict Scale (O'Neil, Helms, Gable, Davis, & Wrightsman, 1986). These

researchers conclude that discrepancy role conflict is significantly related to discrepancy strain and is associated with anxiety and depression.

Dysfunction strain occurs when an individual fulfils the requirements of the masculine stereotype, which has negative side effects for themselves and the people around them. Brooks and Silverstein (1995) identify four aspects of the masculine ideology leading to psychological stress. These are violence, including violence and sexual assault against women and members of the family; sexual excesses, including promiscuity and sexual addiction; socially irresponsible behaviours, such as alcohol and drug abuse and risk taking behaviour; and interpersonal problems. It has been suggested that these problems are associated with mental illness such as depression through a decrease in the quality of men's marital and parental relationships (Barnett, Marshall, & Pleck,1991).

Trauma strain results from socialisation into the male gender role, which is believed to be inherently stressful. Although research has shown that in the first year of life males tend to be more emotionally expressive than females, the process of male gender socialisation teaches males to suppress their emotions. Levant and Kopecky (1995) use a social learning paradigm to describe this process. Mothers tend to work harder to manage inherently more emotional male infants while fathers tend to interact with their children congruent with gender stereotypes reinforcing the masculine ideology in male children. In addition, both parents encourage the expression of anger and aggression in boys whilst discouraging the expression of vulnerable emotions such as fear and sadness. Unlike females, males may experience an early and sharp separation from their mother and may experience a distant relationship with their father. Peer relations also contribute to this process. Males are encouraged to play in large groups using structured games. This promotes teamwork, toughness, and competition to the detriment of emotional skills such as empathy. Research has shown that this socialisation process has a number of consequences when males reach adulthood (Levant, & Kopecky, 1995). Males fail to develop an adequate level of emotional empathy and therefore find it hard to take other's perspectives and interpret how they feel. Males tend to express vulnerable emotions as anger and aggression. Likewise feelings of care tend to be expressed as sexual behaviours. Males can also have difficulty in expressing their emotions, showing signs of alexithymia, such as expressing emotions in terms of somatic sensations and physical reactions rather than accompanying thoughts.

The gender role strain paradigm of male depression is a relatively new school of thought which has been subject to minimal testing. Current research in this area is aimed at developing male empathetic, psychoeducational techniques which can be used to apply these ideas to the treatment of masculine depression (Pollack, 1995).

Masculine depression as a distinct pathological entity.

Recently it has been suggested that male depression is best understood as a separate, distinct pathological entity to female depression. Research by Rutz, von Knorring, Pihlgren, Rihmer, and Walinder (1995) showed that men presented with a constellation of symptoms which differed from female respondents (table 3). This led the researchers to believe that depression in males and females may be independent entities with separate manifestations (Walinder, & Rutz, 2001).

According to Wallinder and Rutz (2001) a sub type of depression introduced by van Praag (1996, 1999) is highly relevant to their concept of a male depressive syndrome. Van Praag proposed a subtype of depression in which 5-HT dysfunction plays a central role, anxiety and/or aggression are primary symptoms alongside lowered mood, and life stressors are a precipitating factor.

Table 3. The Male Depressive Syndrome.

Lowered stress tolerance.
Acting out behaviour.
Reduced impulse control.
Irritability, restlessness, dissatisfaction.
Substance abuse.
Antisocial behaviour.
Depressive thought content.

Based on his own research, which showed no causal relationship between low levels of 5-HT and depressed mood, van Praag (1992) suggests that the link between low levels of 5-HT and depressed mood is indirect, with low levels of 5-HT being more closely associated with components of depression, in particular an increase in

anxiety and aggression dysregulation. This idea has been supported by research showing low levels of 5-HT in individuals diagnosed with non-depressive psychological disorders which include manifestations of aggression and anxiety (Winchel & Stanley, 1991; Pratt, 1992).

Further analysis by van Praag (1992) supports the existence of a distinct subtype of depression fitting this pattern of dysfunction. This subtype of depression is characterized by initial manifestations of increased anxiety and/or the dysregulation of aggression with depressed mood coming later. The existence of this as a subtype of depression has received support from research showing that when this type of depression is treated with antidepressant medication, the first signs of recovery include significant decreases in anxiety and episodes of aggressiveness. Due to the trait like nature of 5-HT dysfunction, van Praag hypothesized that 5-HT dysfunction acts as a predisposition to depression which needs to be triggered by stressful life events. On the basis of this research the Gotland Male Depression Scale (Rutz, 1999) was developed to identity depression in males. As well as including items related to typical symptoms of depression there are items related to irritability, aggression, acting out, and substance abuse. An unpublished study using the Gotland Male Depression Scale for the first time shows adequate levels of internal validity and reliability (Walinder, & Rutz, 2001).

The concept of a distinct male depressive syndrome has been suggested in the past. Egland and colleagues et al. (1983) research with the Old Order Amish found that over a five year period major depressive disorders were equally distributed across the males and females in the research sample. It was proposed that this was because substance abuse and anti social behaviour do not mask depression in Amish males. This study combined with more recent research shows little difference in the rates of male and female depression (Simpson, et al., 1997; Zlotnik, Shea, Pilkonis. Elkin, & Ryan, 1996) and suggests that the over representation of depressive illness in females is an artifact of biased diagnostic categories and therapeutic concepts.

Although the work of Walinder, Rutz, and colleagues (2001) supports the existence of a male depressive syndrome, more research is needed to validate the compatibility of this model in explaining depression in males. In particular it is important to determine whether this model of depression is nosologically distinct or related to other diagnostic categories i.e. anxiety and depression, and the exact

process by which 5-HT dysfunction interacts with life events in the development of depression in males.

Limitations of the Current Research on Depression in Men.

The literature presented thus far provides a summary of how researchers have conceptualised depression in men. Recently a number of publications have evaluated this body of literature, highlighting the significant gaps in understanding the causes and manifestations of male depression and arguing that the existing literature does not go far enough in capturing the reality of depression in men (Cochran and Rabinowitz, 2000; Lynch, & Kilmartin, 1999). It has been argued that this is due to an over-reliance on positivistic research practices, and the application of homogenous theories of depression developed from research using predominantly female samples, to understand depression in males.

An over reliance on positivistim.

As a discipline psychology has prioritised the positivistic approach to studying human behaviour over all others but there has been debate as to whether positivist methodologies are the most appropriate way of conceptualising human behaviours such as depression (Stiles, 1990; Stoppard, 1999; Henwood, & Pidgeon, 1995).

The term positivism is based on the tenet that reality exists and can be known through observation and logical deduction (Guba, 1990). This approach proposes that an external reality exists as a singular and knowable entity. The goal of psychologists is to organise reality into independent variables and processes and then identify the relationships between these variables using linear cause and effect relationships which are universal to all humans. These can then be used to predict and control future behaviour (Patton, 1990).

Critics have argued that the positivist view that depression exists as a singular knowable entity is illusionary. Psychological constructs such as depression are better understood as relative concepts which are subjective, and culturally and historically bound (Burr, 1995). Mishler (1979) proposes that in positivistic research there exist a paradox between context and meaning. Mishler argues that all human behaviour is undeniably grounded within a context, which gives it meaning. To try and understand behaviour independent of its context is impossible. Despite this the

positivist paradigm views context as a transparent entity through which reality can be observed. Attempts to justify behaviour in this manner have resulted in complex social and contextual variables being reduced to broad, monocular constructs such as negative life events, life stressors and social support networks. Du Bois (1983) believes that rigid, dichotomous entities such as these are not the properties of human life or the human experience and have limited utility in furthering scientists understanding of human behaviour.

The positivist paradigm proposes that it is both essential and possible for the inquirer to remain objective from the topic of inquiry. Positivist researchers believe that employing detached observational techniques prevents the inquirer's values and biases and other confounding variables from distorting the true nature of reality. Critics have argued that this approach ignores the interaction of the researcher and the respondent on the way depression is studied. The natural science approach makes the false assumption that researchers can suppress all extraneous factors and allow themselves to be guided by logic and facts (Ussher, 1992). Burr (1995) argues that there is no such thing as a value free inquiry and that the results of any inquiry are a product of mutual negotiation which occurs between the researcher and the participant and do not reflect observed facts. Henwood and Pidgeon (1995) identify four avenues of subjectivity that influence the researcher/participant relationship: the participant's own experiential understanding of the topic; the researchers' perspective and interpretations; the cultural meaning systems linking the researchers and participants' understandings; and the salient social and institutional networks promoting particular interpretations as valid. It has also been argued that a dualist approach promotes a hierarchical relationship between the researcher and the participant which devalues the validity of the participant's own experiential understanding of depression (Stoppard, 1999).

The prioritisation of a value free investigation is maintained through the use of hypothetico-deductive methodologies. This is a model of investigation in which aspects of human behaviour and/or environmental variables are operationalised as quantifiable entities and then manipulated in a controlled environment to test the validity of a prior hypothesis. The data is then analysed using logic and inferential statistics. From this the laws governing human behaviour will manifest. It has been argued that this approach to research ignores the extent to which such knowledge is value laden. All knowledge is grounded in a milieu of scientific assumptions, research

purposes and methodological practices, and is constructed accordingly (Altheide, & Johnson, 1994). Such knowledge is therefore relative and to a degree arbitrary (Spender, 1981). To overcome this issue requires the acceptance of a non value-free orientation and a high degree of reflexivity. The impaired capacity of the positivist approach to do this is reflected in the inability of psychologists to identify universal laws which govern human behaviour (Stoppard, 1999). Furthermore, Guba (1990) argues that the use of laws to understand human behaviour suffer from the problem of induction, which states that the validity of a deductive theory comes from data that has already been collected. Such data does not provide indisputable support for the theory, as there is no guarantee that the data collected is an accurate representation of the population. Henwood, and Pidgeon (1992) believe that this approach to the study of human behaviour is highly reductionistic and ignores the complexity and inherent uniqueness of the human experience.

The application of traditional models of depression to understanding depression in males.

In general researchers have shown an indifference to the issue of gender and its relationship to depression (Ussher, 1991). Traditionally researchers have constructed gender within the reproductive arena as a dichotomous variable based on biological differences (Feree, Lorber, & Hess, 1999). In doing so more comprehensive constructions that recognise gender as it relates to gender, age, ethnicity, and sexual orientation have been avoided. This, combined with inconsistent support for theories of depression derived from the stress-diathesis paradigm and the inadequate understanding psychologists have regarding the link between gender and depression, has led to the belief that traditional models of depression apply equally well to both males and females (Coyne, & Whiffen, 1995). Unfortunately, attempts to study male depression using mainstream theories of depression are flawed. Due to the disproportionate number of females diagnosed with depression compared to males mainstream theories of depression have been based on research using primarily female samples (Lynch, & Kilmartin, 1999; Tavris, 1992). This has meant that women with depression have constituted the norm on which the general criterion of depression is based (Tavris, 1992). Furthermore, It has also been suggested that measures of depression developed from such theories measure deviation from the normal female experience and lack sensitivity to the male experience of depression

(Stapley & Haviland, 1989). Rutz, Walinder, von Knorring, Rihmer, and Pihlgren (1997) believe that this bias has led to the development of current diagnostic systems that fail to recognise male depression, as well as health care systems that can not assist in the management of clinical issues which are unique to males with depression. These include, masked depression, high rates of comorbid substance abuse and suicide, low rates of males in psychological treatment programs and the over use of pharmocotherapies (Cochran, & Rabinowitz, 2000).

The Present Study.

In response to the limitations evident in the current theoretical accounts of masculine depression there have been calls to examine the nature of it using a qualitative methodology (Walinder, & Rutz, 2001; Lynch, & Kilmartin, 1999; Cochran, & Rabinowitz, 2000). Cochran and Robinowtiz (2000) suggest that a qualitative study examining the male experience of depression will make a significant contribution to the literature. These researchers believe that asking men to discuss the experience of depression is a simple and direct way of developing an understanding of masculine depression, looking beyond the traditional models of depression to what lies beneath, whilst pointing researchers in further, as yet unspecified directions. A review of the literature found only one recently published article that had examined the experience of depression in men (Heifner, 1997).

The primary objective of the present study is to conceptualise depression based on the experiences of affected males using a grounded theory methodology. Three aims relate to this objective. They are to complement the existing literature by offering an alternative perspective to mainstream theories of male depression; provide clinicians and researchers interested in the area of masculine depression with a base from which fresh lines of inquiry can be developed; and add to the New Zealand literature on depression by raising awareness of the social issues which are relevant to the management of male depression.

In light of the recent literature examining the possible role of omega-3 fatty acids in the development of depression, the School of Psychology, Massey University and Crop & Food Research, Palmerston North initiated a project examining the effect of omega-3 fatty acid supplementation as an adjunct to usual therapy in the treatment of depression. The overall project consists of a double-blind placebo controlled 12-

week clinical trial the results of which will be presented elsewhere. A secondary objective of the present study involves collecting data from male participants for the over all research project.

Summary.

This section has provided a summary of how researchers have come to understand depression in men using the stress diathesis paradigm. The stress diathesis paradigm proposes that depression arises from multifactorial etiologies which are embedded in a network of predispositions and stressors.

The biogenic amine hypothesis proposes that depression is caused by imbalances in a specific group of neurotransmitters in the brain called biogenic amines. Further analysis has shown that the relationship between lowered catecholamines and depression seems to be indirect and involve interaction with other neurotransmitters and specific post synaptic receptor sites. This research highlights the complex chemical nature of depression and has led researchers in this field to caution against coming to dogmatic conclusions regarding biogenic theories of depression (Green, Mooney, and Schildkraut, 1988). Current research in this area is aimed at clarifying the effects of these neurochemicals on specific post-synaptic receptors. It is hoped that such studies will allow researchers to examine gender differences in the chemical nature of depression, as well as the specific chemical nature of depression in men.

The literature has examined the role of two neuroendocrine systems in the development of depression. The hypothalamic-pituitary-adrenal (HPA) axis has been associated with the vegetative symptoms of depression such as sleep and appetite disturbances, as well as lowering the density of serotonin receptors in the brain. A number of studies have identified sex differences in the sensitivity of the HPA axis but these differences are minimal and it is difficult to differentiate the role of this axis in the development of male depression. More recently the hypothalamalic-pituitary-thyroid (HPT) axis has been implicated in the development of depression with 25% of depressed people having abnormalities of this axis. In addition, these abnormalities have been shown to be less common in males than females. Unfortunately gender differences found in the functioning of the HPT axis cannot account for the differences in male and female depression.

Researchers have examined the role of gonadal hormones in the development of masculine depression. This research has shown that testosterone may be inversely related to depression. This relationship seems to be indirect however, and more research is required to specify whether testosterone has more than a mediating relationship to depression.

A developing body of literature has been devoted to understanding the relationship between diet and depression, in particular the role of omega 3 (n-3), an essential fatty acids in the development and maintenance of depression. Epidemiological, case control, and experimental studies have shown that a deficiency in n-3 fatty acids and a low ratio of n-3 to n-6 fatty acids may be a factor in the development of depression. At this stage there is no research available which supports a causal relationship between n-3 fatty acid deficiency and depression. This makes it difficult to examine the function of gender on this relationship.

Recently, psychoanalytic theories have merged with feminist schools of thought and have conceptualised male depression as a natural reaction to cultural beliefs which devalue a man's need for an intimate relationship. Like other psychoanalytic theories this approach has been hard to validate.

The interpersonal theories of depression propose that depression develops as a result of disruptions in an individual's social relationships and the roles they fulfil in these relationships. The relevance of an interpersonal theory of depression in men is highlighted by research showing a close relationship between interpersonal disruption in men's lives and depression. This is a relatively new school of thought and there are a considerable number of issues which need to be addressed.

The theory of learned hopelessness proposes that depression is a learned response from specific environmental stimuli that becomes overgeneralised. While some studies have validated this theory as a possible cause of depression others have shown only mixed support. In relation to male depression, studies have shown a relationship between the development of a negative attribution style and gender specific socialisation practices which may account for the different rates of depression in males and females.

Cognitive theories of depression propose that depression is caused and maintained by maladaptive thought processes. One of the most influential cognitive theories of depression was developed by Aaron T Beck (1967). This focuses on three interrelated concepts; the cognitive triad, cognitive distortions that lead to faulty

information processing, and negative self-schema. The relevance of this theory to depression in males is highlighted by research which has identified gender differences in cognitive thought patterns as a means of dealing with depression. While females tend to employ a ruminative response style males favour a distractive response style. This has prompted researchers to undertake research examining how a distractive response style may be associated with the suppression of depressive symptoms in men.

Gender role theories of depression propose that gender governs various aspects of behaviour in both a positive and negative manner and that the strict adherence to a traditional masculine stereotype leads to negative psychological outcomes including depression. This research identifies three types of gender role strain; discrepancy strain, dysfunction strain, and trauma strain.

Recently it has been suggested that male depression is best understood as a distinct pathological entity to female depression. This research proposes that masculine depression is best understood as a subtype of depression which is stress precipitated, serotonin related, and anxiety or aggression driven. Further research is needed in this area to determine whether this model of depression is nosologically distinct or related to other diagnostic categories i.e. anxiety and depression, and the exact process by which 5-HT dysfunction interacts with life events in the development of depression in males.

From this review it can be concluded that at this stage no one theory can account for the development of depression in men. Two major limitations of this body of literature have been identified. These are the over reliance on positivistic research practices and the application of traditional models of depression to understanding depression in males. In response to these limitations there have been calls to examine the nature of male depression using a qualitative methodology. The primary objective of the present study is to conceptualise depression based on the experiences of affected males using a grounded theory methodology. A secondary objective of the present is to collect data from male participants for a research project initiated by the School of Psychology, Massey University and Crop & Food Research, Palmerston North examining the effect of omega-3 fatty acid supplementation as an adjunct to usual therapy in the treatment of depression.

PART TWO

THE PRESENT STUDY

CHAPTER FIVE

GROUNDED THEORY.

The following section will outline grounded theory as the chosen research methodology. The grounded theory approach to data analysis will be discussed along with research tools that are normally incorporated into this process. This section will conclude by examining the criteria which is used to guide and evaluate grounded theory research.

Grounded Theory Methodology.

Grounded theory is informed by symbolic interactionism, which proposes that an individual's sense of self and the meaning of a situation is created by individuals through social interaction and is informed by action and the consequences of action (Chenitz, & Swanson, 1986). As a research methodology grounded theory provides a systematic way of conceptualising human behaviour and social phenomena as dynamic social processes. The adoption of grounded theory in this study was primarily a pragmatic decision made in response to the nature of the research question. Grounded theory is specifically designed to provide rich and detailed information about social phenomena from unstructured, naturalistic data, and is particularly appropriate where new points of view are sought on familiar topics (Stern, 1980). Furthermore, as a topic of inquiry depression is primarily a semantic construct having multiple interpretations and cannot be delineated by one avenue of inquiry. It is therefore important to use a method of analysis which accommodates multiple perspectives in understanding this phenomenon. As a method of data collection grounded theory is non-manipulative and requires no deception. This was considered an advantage considering the sensitive nature of the research.

Strauss and Corbin (1990) describe grounded theory as a qualitative research approach that uses a systematic set of procedures to formulate a grounded theory about a social phenomenon. Rather than a set methodological procedure, grounded theory is best described as a style of research that can be delineated by a number of interrelated methodological guidelines that vary in accordance with the aims and context of the research and the topic of inquiry (Strauss, 1988). Glaser and Strauss

(1967) suggest that the assumption that precise and exact methodology is the basis of effective scientific research is not appropriate when theorising about of social phenomenon, as it ignores the inherent complexity in human behaviour and constrains creativity and insight, two important processes in interpreting social phenomena.

The aim of grounded theory is to generate a theory that is grounded in data that accounts for the phenomenon being examined. A central aspect of this approach is that the theory emerges from the data and not as a result of testing prior hypotheses based on pre-existing theoretical frameworks using logical deductive reasoning. All aspects of the theory such as concepts, categories, ideas intuitions and hypotheses emerge from the research process itself and need to be confirmed by empirical indicators in the data (Bowers, 1988).

The implication of this approach to practice is that a broad variety of data sources are used to ensure the validity and comprehensiveness of the emerging theory (Chamberlain, 1999). The literature on grounded theory has emphasised the use of naturalistic data when developing theories about social phenomena (Bowers, 1988). When using this approach everything should be viewed as a potentially valuable source of data including quantitative techniques, pre-existing technical and non-technical literature as well as the researcher's own professional understanding on the topic (Glaser and Strauss, 1967). The ability to view all data in theoretical terms, to identify data that is pertinent to the understanding of the phenomenon from that which is not, and to draw insights from the data is a key characteristic of a grounded theorist. Strauss (1988) refers to this ability as informed theoretical sensitivity and believes that such sensitivity develops from the previous experience the researcher has had with the topic of inquiry in combination with the analytic process itself.

The intertwined nature of the data collection and analysis is another important feature of grounded theory. Grounded theory is a non-linear process with the tasks of hypothesis generation, data collection, and data analysis occurring simultaneously. The constant comparative method is a hallmark of this approach. This involves systematically comparing incidents, informants, and categories for differences and similarities at every stage of the analysis. This process is considered the principal analytic task of grounded theory as it aids in the identification of concepts and categories, the theoretical processes that link these concepts, as well as hypothesis formation and testing (Chamberlain, 1999).

This style of research is both an inductive and deductive process (Henwood, & Pidgeon, 1992). Initial analysis of the phenomena is an inductive process by which data is gathered and systematically organised from sources relevant to the social phenomenon. As the analysis proceeds, attempts are made to form an abstract understanding of the phenomenon. This process requires the researcher to hypothesise what processes and variables underlie the ordering of the data. The verification of these ideas is a deductive procedure using selective data gathering and analysis. This process is called theoretical sampling and is defined by Strauss and Corbin (1990) as data gathering based on concepts that are theoretically relevant to the emerging theory. The interplay of conceptual analysis and returning to the data for verification is designed to develop density in the emerging theory and allows the researcher to remain close to the data throughout the research process. In addition the resulting theory moves beyond a descriptive account of the phenomenon to an abstract level that details relevant relationships and processes that explain its existence (Chamberlain, 1999).

Grounded Theory Data Analysis.

Data analysis using grounded theory begins by sampling data that is relevant to the topic of inquiry. The sampling techniques used at this stage should be selected in accordance with the nature of the phenomenon under investigation and the research objectives rather than for population representativeness (Strauss, 1988). The first phase of data analysis is called open coding. Open coding is a process by which the data is broken down into discrete instances of the phenomenon and given a provisional label using terms evident in the data (Strauss, & Corbin, 1990). This involves the line by line analysis of the interview transcripts, research notes, and observational data. As open coding progresses comparisons are made between pieces of data. This results in similar concepts being grouped under broader categories. In addition provisional hypotheses are made regarding the ordering of the data and the relationship between categories and concepts. The aim of open coding is to open up the topic of inquiry, accordingly the researcher makes no assumptions regarding the theoretical relevance of the emerging concepts and categories.

The second phase of data analysis begins when the researcher uses theoretical sampling procedures to confirm, refine and develop each of the delineated categories.

This process is called axial coding and allows the researcher to clarify the analytic nature of each category and to test provisional theoretical abstractions in relation to the actual data (Strauss, & Corbin, 1990). As additional data is collected new categories and concepts may be identified which in turn require further axial coding.

Strauss and Corbin (1990) have formulated a coding paradigm that can aid in this stage of analysis. Their model promotes the systematic analysis of each category in relation to the phenomenon using the following categories: conditions, context, strategies and tactics, and consequences. Conditions refer to the particular antecedents that cause the phenomenon to occur. As well as referring to the particular environmental conditions that are evident when the phenomenon occurs, context refers to the dimensional properties of the phenomenon such as its frequency and intensity. Strategies and tactics are interactions and behaviours which are made by an individual in response to the occurrence of the phenomenon. Consequences refer to the outcome of the specific strategies and tactics a person has used in response to the phenomenon.

As the analysis progresses the researcher attempts to integrate the emerging categories into a unified theory using selective coding. Selective coding is the process by which a core category is identified and related to the other categories through further data collection directly related to that category (Chamberlain, 1999). The core category is defined by Strauss (1988) as the category which, through its prevalent relationship with other low-level categories, accounts for most of the variation in the social phenomenon. The identification of a core category is central to the integration of the theory as it maximises the parsimony and scope, and ensures density, completeness, and theoretical saturation (Glaser, 1992). Saturation is a key feature of grounded theory and occurs when no new information is being received which further expands the theory (Charmez, 1994).

Additional Data Analysis Procedures.

Alongside the coding of data, memo writing and diagrammatic drawings are two important procedures which aid in the development of the emergent theory.

Memos are written records of ideas, insights, and hypotheses about the research process. Memo writing is a key requirement of developing conceptually dense theory as it assists the researcher in keeping track of ideas pertinent to the

development of the emerging theory, and serves as a stimulus for further conceptualization (Strauss, 1988). There are three different forms of memos. Code notes are memos written about the coding procedure and include conceptual labels, definitions of categories, properties, and dimensions, as well as descriptions of the relationship between these phenomena. Theoretical notes are memos which aid in the theoretical development of the emerging theory. Operational notes refer to memos offering directions regarding further data collection and relevant theoretical sampling procedures. As memos are written it is important that they are sorted for content and integrated with one another. This process allows the researcher to handle experiential pieces of data and ill-defined categories with analytic precision (Charmez, 1994).

Like memos, diagrams aid in the development of the emerging theory. Diagrams vary in content but are normally employed as a way of presenting conceptual relationships between concepts, categories, properties, and dimensions for further analysis (Browne, & Sullivan, 1999).

Criteria for Guiding and Evaluating Grounded Theory Research.

Between grounded theorists there is debate regarding what constitutes proper practice. This has resulted in a variety of validity checks and standards of practice being offered by the literature (Chamberlain, 1999; Leininger, 1994; Strauss, & Corbin, 1990; Glaser, & Strauss, 1967). For the most part this variation has arisen from the ability of grounded theory to accommodate different ontological and epistemological assumptions. Stern (1980) suggests that the use of different underlying assumptions represents different versions of grounded theory, which have different criteria for practice and evaluation. In light of this, Henwood, and Pidgeon (1992) argue that when generating theory about a social phenomenon it is important to consider the multiplicity of possible interpretations and that no one methodological approach can guarantee the accuracy of an interpretation. These researchers suggest the following general practices illustrate rigour in qualitative research and should guide the progress and evaluation of a study.

The theory should fit the reality of the phenomenon represented by the data. It is important that the data gathered provides the base on which the categories which constitute the emerging theory are formed and are not the result of preconceived

reasoning. When reviewing grounded theory research, integration between data and theoretical concepts should be apparent and coherent throughout the theory.

The theory should be meaningful to the phenomenon. The theoretical interpretation of the phenomenon should be comprehensive, show integration across all levels of abstraction, explain the existence of the phenomenon, and be general enough to account for variation across the variety of data gathered.

The theorist should be explicitly self conscious about their impact on the study and this should be evident in the documentation of the theory. This requires the researcher to acknowledge and discuss the role of particular experiences and values they bring to the topic of inquiry and how these may have influenced the emerging theory.

All aspects of the research process should be documented in a way which allows an external audit to be performed by fellow researchers. Relevant documentation may include sampling decisions, descriptions of the context in which the data was analysed, definitions of concepts and categories, as well as thought processes leading to the conceptualisation of the data. Smith (1996) suggests that a portion of raw data should also be supplied so readers can check the quality of the interpretations that have been made.

The sampling of data is a key consideration of qualitative research. It should be relevant to the topic of inquiry and evolve with the emerging theory in a way which results in conceptually dense theory. Evidence of selective sampling that challenges initial assumptions, tests provisional abstractions, and expands the data corpus should be present in the research process.

It is important that the research findings have general significance to the topic of inquiry. Henwood and Pidgeon (1992) suggest that this can be judged by the transferability of the research findings. Transferability is closely related to the quantitative ideal of generalisability and refers to the applicability of the research finding to situations that are similar to the context in which the research was conducted (Lincoln, & Guba, 1985). The emergent theory should also be open to modification and lead to additional hypothesis formation and investigation (Glaser, 1978).

A study should also be judged by how well it is received and comprehended by those involved in the area, in particular the participants who provided the data. Stiles (1990) believes that an interpretation that is valid to the participants will help

them grow from their experiences and give them a sense of empowerment and control over their experiences. This practice has been criticised on the grounds that the participants may not be aware of the reasons behind their actions and questioning the interpretation may be limited by the perception of authority attributed to the researcher by the participant (Henwood, & Pidgeon, 1992).

Summary.

This chapter introduced grounded theory as the chosen research methodology. Grounded theory was chosen for its ability to provide rich and detailed information about social phenomena from unstructured, naturalistic data. Furthermore, grounded theory is non-manipulative and requires no deception. This is considered an advantage given the sensitive nature of the research.

Grounded theory has been described as a style of research that varies in accordance with the topic of inquiry rather than a set methodological procedure. When using grounded theory a broad variety of data sources are used to ensure the validity and comprehensiveness of the emerging theory including quantitative techniques, pre-existing technical and non-technical literature as well as the researcher's own professional understanding on the topic. Grounded theory is a non-linear process with the tasks of hypothesis generation, data collection, and data analysis occurring simultaneously.

There are three phases to grounded theory data analysis. Open coding is a process by which the data is broken down into discrete instances of the phenomenon and given a provisional label using terms evident in the data. The second phase is called axial coding. This is where the researcher uses theoretical sampling procedures to confirm, refine and develop each of the delineated categories. As the analysis progresses the researcher attempts to integrate the emerging categories by identifying a core category using selective coding. The core category is central to the integration of the theory as it maximises the parsimony and scope, and ensures density, completeness, and theoretical saturation. Additional data analysis procedures commonly used in grounded theory are memo writing and drawing diagrams.

There has been debate regarding what constitutes proper practice in the grounded theory literature. Henwood, and Pidgeon (1992) suggest a number of general criteria which should guide the progress and evaluation of a grounded theory

study. The theory should fit the reality of the phenomenon represented by the data; the theory should be meaningful to the phenomenon; the theorist should be explicitly self conscious about their impact on the study; all aspects of the research process should be documented in a way which allows an external audit to be performed by fellow researchers; the sample should be relevant to the topic of inquiry and evolve with the emerging theory; the research findings should have general significance to the topic of inquiry; and the local theory should be well received and comprehended by those involved in the area, in particular the participants who provided the data.

CHAPTER SIX

THE RESEARCH METHOD.

Participants.

The sample consisted of 31 volunteer males who completed a 12-week, clinical trial examining the effect of omega-3 fatty acid supplementation as an adjunct to the usual management of depression. All the men had received a current DSM-IV diagnosis of unipolar depression from a medical practitioner.

Data Collection Techniques.

Data was collected from the participants during the 12-week clinical trial using periodic psychometric testing, in-depth interviews, and a research journal.

Beck Depression Inventory-II.

The Beck Depression Inventory II (BDI-II: Beck, 1996) is a self-administered pencil and paper questionnaire designed to examine the severity of depression. The BDI-II consists of 21 multiple-choice items which ask the participant to describe their functioning over the past two weeks. Each item consists of 4 statements that vary in the degree to which they endorse specific depressive symptoms or attitudes. Each statement is rated on an ordinal scale of zero to three with a higher score reflecting a more severe level of that symptom or attitude. The BDI-II is scored by adding the rank value of each one of the 21 statements endorsed by the respondent. Scores range between zero and 63 and although there are no specific cut off scores Beck, Steer, & Garbin (1988) suggest the following parameters: 0-9 absence of, or minimal, depression; 10-18 mild to moderate depression; 19-29 moderate to severe depression; 30-63 severe depression.

Research has shown that the BDI correlates well with other well established self report measures of depression such as the Hamilton depression rating scale (r= .86), Zung Self report Depression Scale (r =.86), Minnesota Multiphasic Personality Inventory (r= .75), and the Multiple Affective Adjective Checklist Depression Scale (r =.66). Alternatively the BDI-II shows adequate discriminate validity between clinical depressed people, non-depressed psychiatric samples and non-psychiatric

controls (Katz, Katz, & Shaw, 1999). High correlations between the BDI-II and measures of psychological distress such as the General Health Questionnaire, the Present State Examination, and the Subjective Recollection of Stress have also been found in the literature suggesting that high scores on the BDI-II may also be interpreted as high general psychological distress.

A review of twenty-five studies by Beck, et al. (1988) examining the reliability of the BDI-II found internal consistency coefficients ranged from .73 to .95. Test retest reliability estimates were also reported in this review and show that non-psychiatric patients tend to have higher Pearson's r coefficients than psychiatric populations. Katz et al. (1999) suggests that this reflects the sensitivity of the BDI-II to changes in severity of depression.

Hamilton Depression Inventory- Short Form.

Reynolds and Kobak (1995) developed the Hamilton Depression Inventory (HDI) to provide clinicians with a self report version of the Hamilton Depression rating Scale (HDRS: Hamilton, 1967) that expanded on the original items to reflect current definitions of depression. Two versions of the HDI are available, the full scale version of 23 items and a nine item short form (HDI-SF). This study employed the nine-item version as time restraints precluded the use of the full HDI. Like the BDI-II the HDI is designed to assess severity of depression.

The HDI-SF form consists of nine items from the full-scale version which showed the highest sensitivity in differentiating respondents with major depression from those with other psychiatric disorders and non psychiatric controls. Each item is presented as a question regarding depressive symptomatology and lists between three and five responses that are rated on an ordinal scale from zero to four which reflect increasing severity of that behaviour. Some items consist of a number of questions regarding a particular symptom that examine the severity and frequency of that particular behaviour. The HDI-SF is scored in an additive manner using an algorithm that weights each item. Scores on the HDI-SF can range from 0 to 33. Reynolds and Kobak, (1995) offer the following guide by which raw scores can be interpreted for levels of depression; 0-6 not depressed; 6.5-8.5 sub clinical; 9.0-12.5 mild; 13.0-16.5 moderate; 17.0-20.5 moderate to severe; 21.0 onwards severe.

Kobak, and Reynolds (1999) have extensively reviewed reliability and validity estimates of the HDI-SF. The HDI-SF has shown moderate to high convergent

validity with the HDRS (r = .93), the BDI (r = .93), Adult Suicidal Ideation Questionnaire (r = .69) and adequate discriminate validity with the related constructs such as anxiety, self-esteem, and hopelessness.

The reliability of the HDI-SF has been tested using both measures of internal consistency and test-retest-reliability with alpha coefficients of .93 and median item-total correlation coefficients of .76. Test-retest reliability coefficients were reported as high as .87 for clinical populations and .67 for non-clinical populations.

Perceived Stress Scale-10.

The Perceived Stress Scale-10 (PSS-10) measure was developed by Cohen, Kamarek, and Mermelstein (1983) to measure perceived stress by examining how predictable, controllable, and overloaded respondents perceive their life to be. This study used the 10 item version of this scale as it displays superior psychometric properties to other versions and has been more extensively used providing a superior level of psychometric data available for analysis (Monroe, & Kelley, 1995). Each item asks about feelings of stress experienced by the respondent over the last month. Respondents are asked to rate the extent to which they have felt this way on a five point Likert scale ranging from 0 (never) to 4 (very often). Perceived stress scores are calculated by reverse scoring the four positively worded items and summing the scores across all the scale items. Higher perceived stress scores reflect higher perceived stress in the past month.

Cohen, Kamarck, and Mermelstein (1983) report mean scale scores of 19.62 for an adult American sample, and 23.18 and 23.67 for two independent college samples. In a sample of smoking cessation program participants the mean sample score was 25.00. Coefficient alpha for these groups ranged from .75 to .86. The authors report two-week-test-retest reliability coefficients of .55 and .64. Cole (1999) assessed the differential item functioning of this scale and found non-significant item variance between sex, age, and education. This scale has also been shown to significantly correlate with depressive symptoms and measures of stressful life events (Norvell, Walden, Gettleman, & Murrin, 1993). In addition, research by Pbert, Leonard, and DeCosimo (1992) showed that the PSS-10 was more closely associated with dysfunction than life event scales.

Sf-36 Health Survey.

The SF-36 Health Survey is a 36 item self-report measure that assesses general health status using the following eight health concepts, physical functioning, role functioning, bodily pain, general health, vitality, social functioning, role emotion, and mental health. Each item is used in scoring only one health concept, which aggregates between two and ten items each. These concepts form two higher categories, physical component summary score, and mental component summary score. The designers suggest that the SF-36 be scored using a set of algorithms developed by Ware and colleagues (1994) by which each sub-scale is transformed into a standardised score between 0 and 100, with a mean of 50 and a standard deviation of 10.

The content of the SF-36 has been compared to other generic measures of health with favourable results (Ware, 1994). The hierarchical structure of the SF-36 has been supported by factor analysis, which has shown that physical, and mental health factors account for 80-85% of the variance in the eight health concepts. Factor analytic studies examining the validity of the eight health scales have shown considerable variation across a collection of applications (Ware, 1999). Ware (et al., 1995) report that the mental health sub scale (MHS) of the SF-36 is sensitivity in detecting people diagnosed with depressive disorder. Furthermore in studies of depression the MHS has been shown to be responsive in comparing patients before and after treatment programs, changes in the severity of depression, and differentiating psychiatric populations (Ware, et al., 1995; Beusterien, Steinward, & Ware, 1996). Recently, New Zealand norms were collated that have extended the usefulness of this measure (Ministry of health, 1999).

Manacchia et al. (1997) compared 25 studies examining the internal consistency and test-retest reliability of the SF-36 and found that most estimates exceeded correlation coefficients of .80.

In-depth interviews.

Semi-structured interviews of approximately one hour in length were used to gather detailed information about masculine depression using the men's own narratives. The interview began with a warm up and ended with a debriefing where the participants could ask questions or make additional comments. The instructions to the participants were to "talk about a topic as much as much as possible, and to say whatever comes to their mind". The participant was then asked to describe their

depression. Bowers (1988) believes that it is important to allow the participant to construct their own definition of the phenomenon at the beginning of the interview as taking on an operational definition of depression at an early stage precludes the participants formulating their unique, individualized conceptualisations. A guide of topics to be covered was used by the researcher during the interview as a prompt to cover issues not addressed by the participant and to initiate further discussion (Appendix, A). The schedule was also used to ensure some similarity in the information being obtained (Patton, 1990).

The structure and content of the interview was reviewed by a senior consultant clinical psychologists prior to the commencement of the interviews. Pilots were also conducted on non-clinical controls to structure the interview questions.

Research journal.

During the course of the research period the researcher had regular contact with the participants. During this time the researcher kept notes of logistical arrangements, clinical observations, and conversations with the participants regarding their experiences of depression. These were kept in a research journal and included in the final analysis. For the purpose of analysis each entry into the journal was dated and labelled with the participant's research identification number.

Procedure.

The present study was conducted using a double blind, placebo-controlled 12-week clinical trial. Males were recruited for this study through advertisements in three community papers in the Wellington, Palmerston North and Wanganui district areas, and through referrals from the Palmerston North community mental health team, and private medical practices listed in the Wellington and Palmerston North telephone directories. Those interested in the study were asked to contact the research team. An information sheet outlining guidelines for participation in the study was posted to them (Appendix B).

Due to the self-referred nature of the sample screening criteria were used to eliminate participants who did not qualify for the study before informed consent was obtained (Appendix C). Exclusion criteria included the absence of a primary diagnosis of depression, the presence of any co-existing psychiatric disorder (with the exception

of anxiety disorders or substance abuse disorders due to their high comorbidity with depression in men), not being stabilised on antidepressant medication, presence of a serious medical condition, allergies or objections to taking fish or olive based products from which the omega-3 supplement and the placebo were abstracted, an objection to providing blood samples, blood clotting disorders, use of anti-coagulants, a diet high in fish, and the current use of omega-3 as a dietary supplement.

The participants were assessed five times during the research period. These assessment sessions were at 0, 2, 4, 8,and 12 weeks and took place at Massey University's Psychology Clinics at the Palmerston North and Wellington campuses. In accordance with the Massey University Human Ethics committee requirements an on site clinician was available for consultation should any safety issues arise. During the initial session the following measures were administered. A personal history questionnaire (Appendix D), food frequency questionnaire (Appendix, E), as well as the BDI-II, HDI-SF, SF-36 Health Survey, and PSS-10. A blood sample was also obtained for the analyses of fatty acids and serotonin. The participant's mental health care provider was also contacted and was sent a questionnaire to confirm the participant's diagnosis and treatment details (Appendix F). The participants were then randomly assigned to either the experimental group or a control group. The number of participants assigned to these groups were 14 and 17 respectively. The experimental group was instructed to take 8 capsules of the supplement per day. The control group was supplied with the same number of capsules containing the placebo only. Participants repeated the BDI-II, HDI-SF, and the PSS-10, at weeks 2, 4, 8 and 12 of the trial. The SF-36 Health Survey was administered monthly (weeks 4, 8 and 12) and additional blood samples were taken at 2, and 12 weeks.

During the final interview session, 4 participants were randomly selected from each group to take part in an in-depth interview regarding their experiences of depression. These interviews were audio taped and transcribed at a later date with all identifying references omitted. The transcripts were then offered back to the participants to view and discuss with the researcher if necessary. During this process no changes were made to the transcripts. The data collection spanned an 18-month period. During this time regular contact was made with all participants in the form of newsletters which allowed the participants to remain informed about the progress of the research.

Data Analysis.

Both the qualitative and quantitative data was analysed for meaning using grounded theory as proposed by Strauss (1988) and Strauss and Corbin (1990).

Due to the time delay in collecting and analysing the quantitative data the in depth interviews and the research journal were the primary sources of data early in the research period. Initially four interviews were conducted. The focus during this stage of the analysis was to identify substantive codes and to delineate these codes under broader categories. This was done using a combination of open and axial coding in conjunction with the paradigm model outlined by Strauss and Corbin (1990). The remaining interviews were staggered over the 15-month research period along with the accumulation of field notes. This allowed the researcher to theoretically sample further instances of the men's experiences. This served to develop and refine the emerging theory. As the analysis progressed, a large portion of the memo writing became devoted to integrating the main categories into a more abstract level of understanding that focused on identifying the core category.

As the psychometric data became available it was analysed using a range of descriptive statistics and Multivariate Analysis of Variance (MANOVA).

PART THREE
RESULTS AND DISCUSSION

CHAPTER SEVEN
QUANTITATIVE ANALYSIS.

This chapter will present a range of quantitative data, collected during the course of the omega-3 supplement trial. The aim of this chapter is to offer the reader a profile of the research sample from which the narratives were collected and to examine the context in which the grounded theory analysis was embedded.

Sample Profile.

Demographic information.

The age of the participants ranged from 21-78 years with a mean age of 46.51 years. The data collected from the personal history questionnaire showed that the majority of the men were Caucasian. Of the 31 participants 26 identified themselves as 'New Zealand Pakeha/ European', and 4 identified as 'other European'. The one remaining participant was of Asian Indian decent.

At the time of the study 15 of the participants were unemployed. This is congruent with the distribution of the men's self reported annual income represented in figure 1, which showed a slight positive skewness of .798.

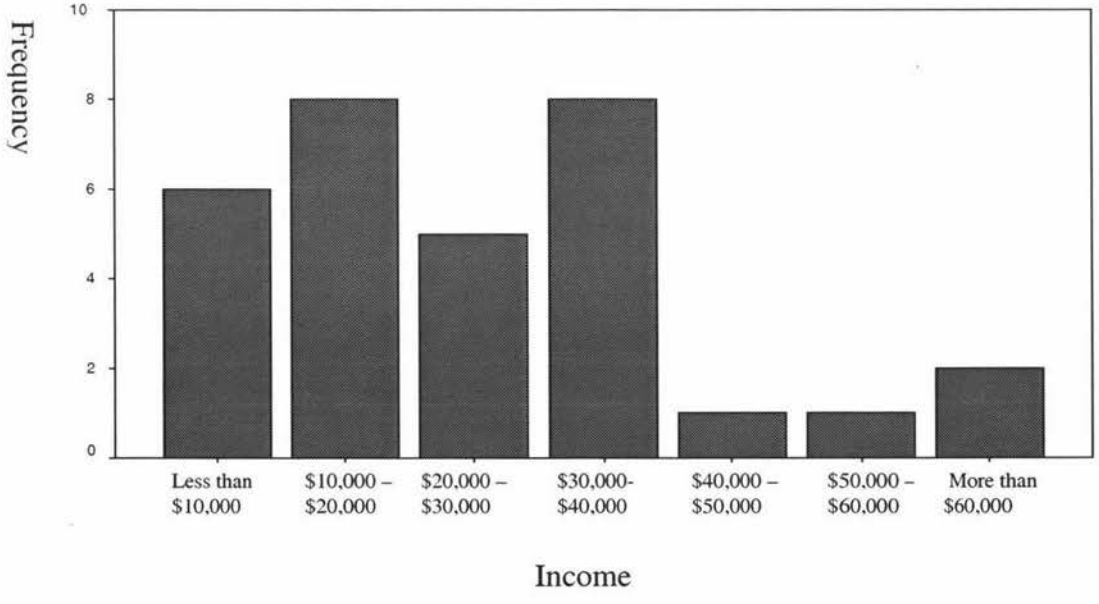

Figure 1. Distribution of Annual income.

All of the participants reported having received some form of secondary qualification. Of the 9 participants who had gained higher qualifications, 5 had a degree or diploma and 4 had a postgraduate degree or diploma.

The marital status of the participants at the time of the study is presented in figure 2. Of the 31 participants 23 were either currently married or had been married in the past. Of the eight remaining participants one got married during the course of the study.

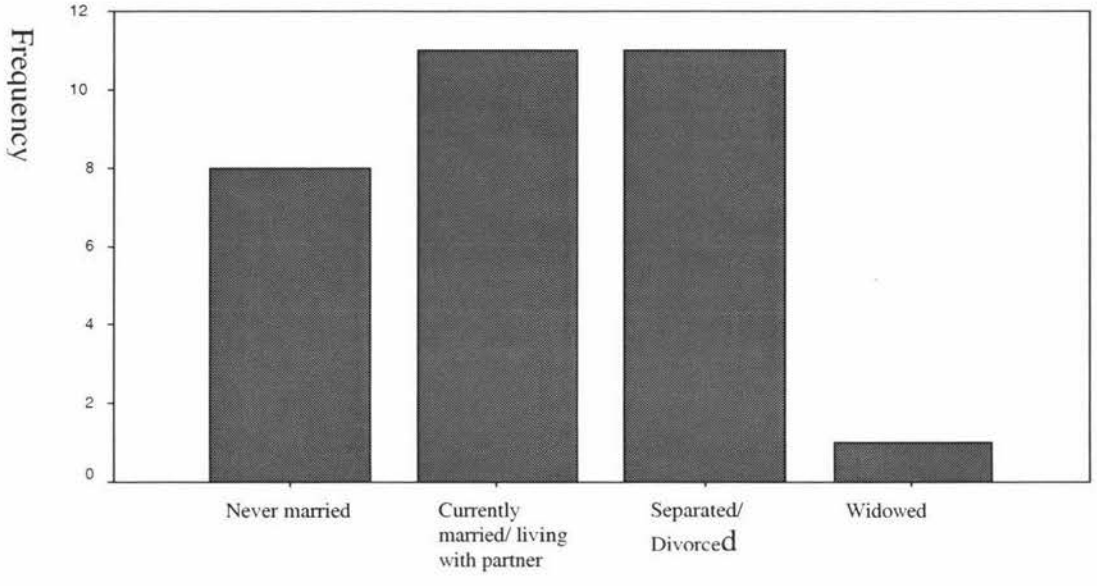

Figure 2. Distribution of the Participants Living Arrangements at Week 0.

Mental health history

There were considerable differences in the chronicity of depression across the research sample. The time lapse since the onset of the first episode of depression ranged from 1 to 32 years, while 3 of the men reported "having depression as along as they can remember". Furthermore, since the onset of their depression some men were able to identify specific episodes of depression while other men had experienced "ongoing depression most of their lives". Over the course of their depression fourteen participants had attempted suicide while 4 of these men had made multiple attempts at their life. Although the screening criteria limited the range of additional diagnoses in

the participants an examination of the diagnosis and treatment details provided by the participant's mental health care provider showed 4 of the men had been treated for substance abuse disorders in the past while two others had been diagnosed with an anxiety disorder.

Current level of depression.

The means and standard deviations of the Beck Depression Inventory II (BDI-II), Hamilton Depression Inventory – Short Form (HDI-SF) at week 0 are presented in table 4. This data indicates that there was high degree of variation in the participants' mental health status at week 0. Figures 3 and 4, present the distributions of the participant's week 0 BDI-II and HDI-SF scores in relation to their standard scoring parameters. A pertinent feature of this data is that 7 of the participants week 0 BDI-II and 11 participants week 0 HDI-SF scores did not convey a clinical level of depression despite the men's current diagnosis of depression.

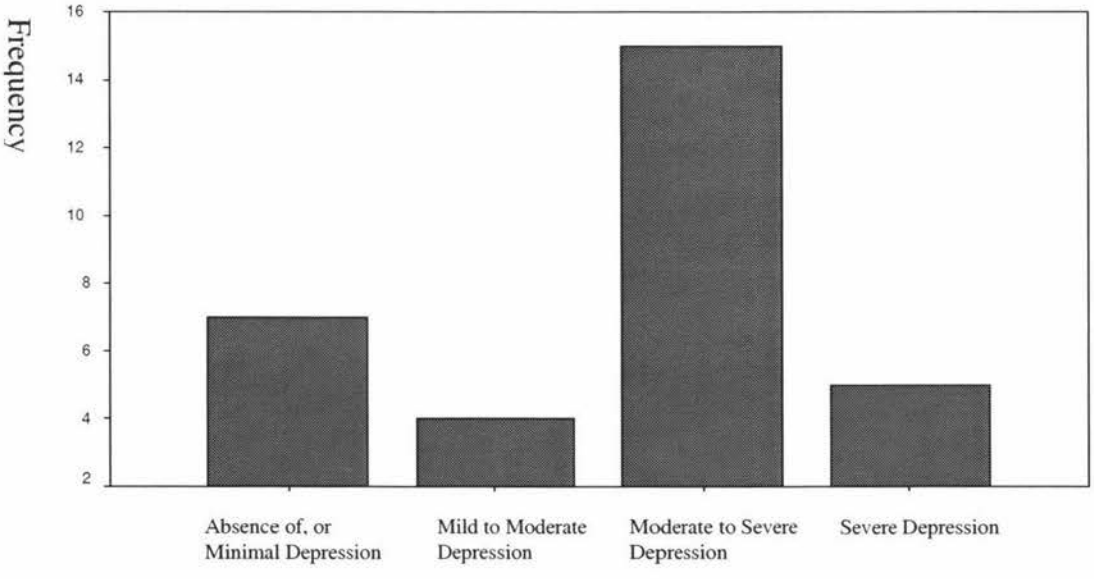

Figure 3. Distribution of BDI-II Scores at Week 0

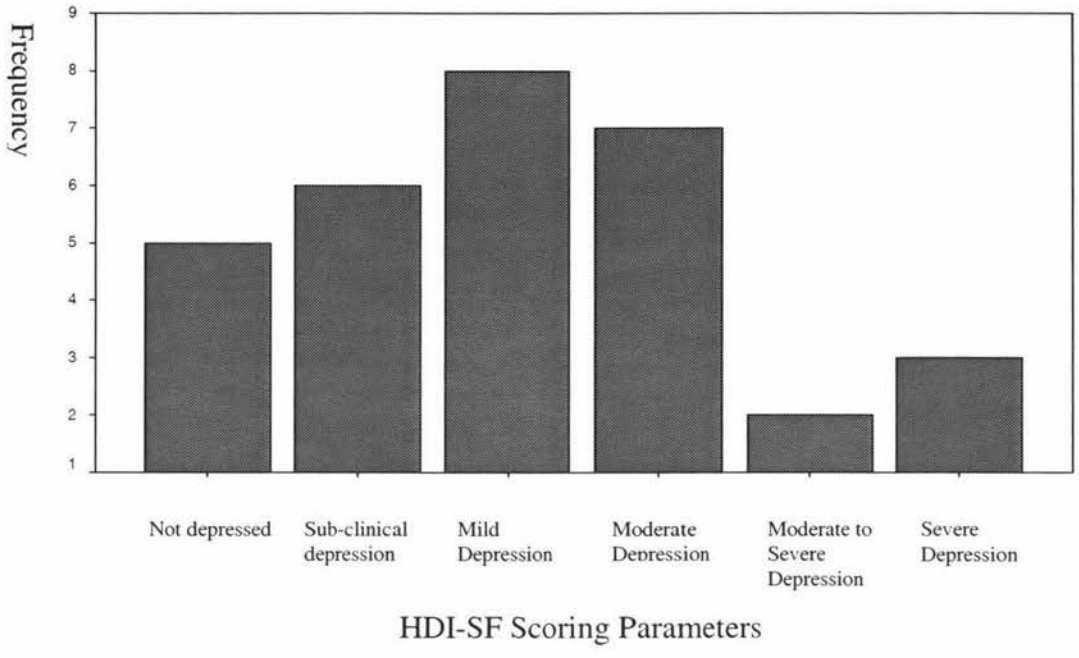

Figure 4. Distribution of HDI-SF Scores at Week 0.

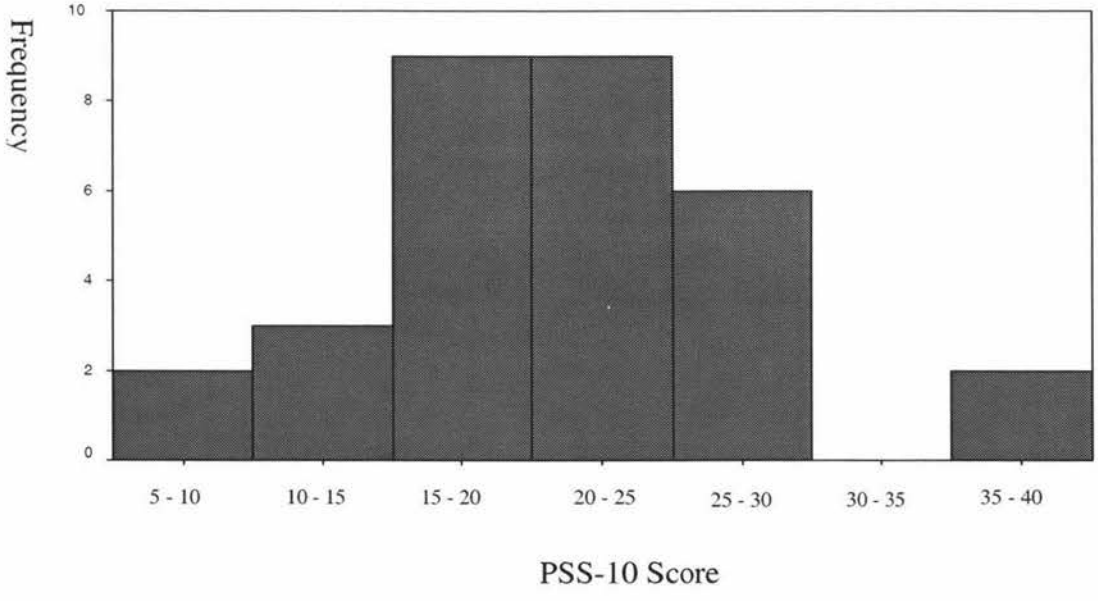

Figure 5. Distribution of PSS-10 Scores at Week 0.

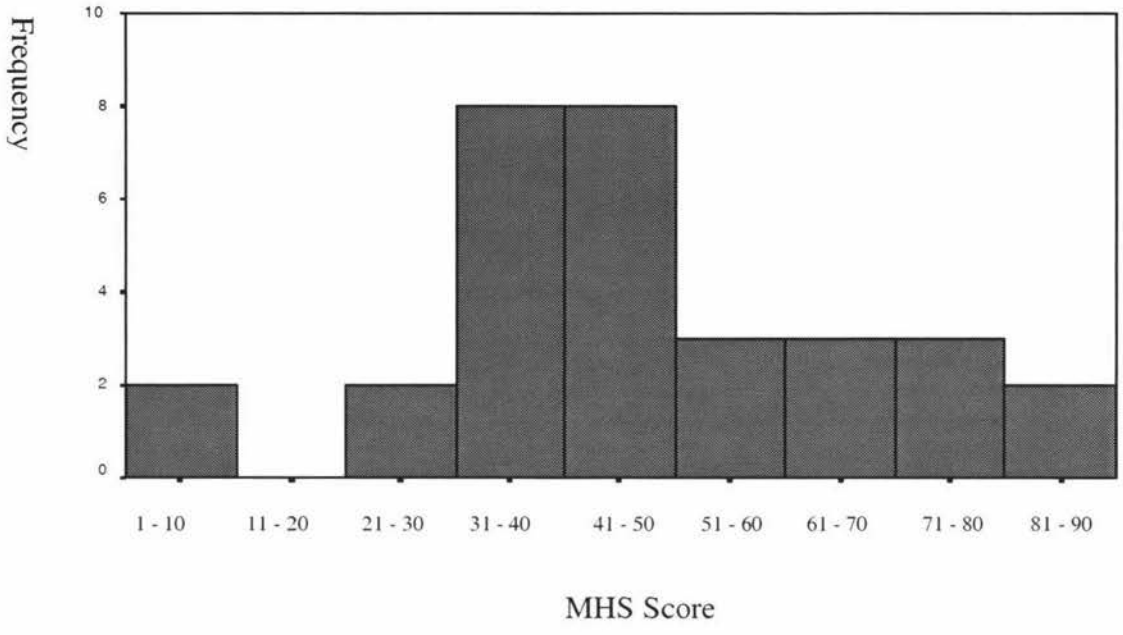

Figure 6. Distribution of MHS Scores at Week 0.

The high degree of variation in the participants scores on the BDI-II and the HDI-SF is consistent with their scores on the mental health sub scale of the SF-36 (MHS), and Perceived Measure of Stress 10 (PSS-10) at week 0 which also showed a high degree of variation (table 4). The distributions of these scores are presented in figures 5 and 6 respectively.

Current treatment for depression.

The most common form of treatment used by the men was pharmacotherapy. Of the 31 participants 27 were being prescribed anti depressant medication during the course of the study. A requirement for inclusion in the study was that they be stabilised on their medication. This precluded medication and dosage change during the course of the study. Ten of these men were also receiving supportive counselling. Of the remaining 4 participants 2 were receiving supportive counselling only while the other two were not receiving any treatment.

The Research Context.

The data that was collected from the BDI-II, HDI-SF, PSS-10, and the MHS over the 12-weeks was collated to see if there were any changes in the participant's

level of depression over the course of the study. Table 4 presents the mean and standard deviations for these measures over the course of the research period for both the experimental and control groups.

Table 4: Means and Standard Deviations of BDI-II, HAM-SF, PSS-10, and MCS over the 12-Week Research Period.

		CONTROL GROUP		EXPERIEMENTAL GROUP		TOTAL	
		MEAN	SD	MEAN	SD	MEAN	SD
BDI-II							
	Week						
	0	22.64	13.41	18.21	9.39	20.64	11.79
	2	14.29	13.81	11.21	9.34	12.90	11.91
	4	12.94	11.88	13.42	14.1	13.16	12.73
	8	11.29	13.79	9.21	8.51	10.35	11.70
	12	9.47	12.53	11.50	10.96	10.38	11.70
HAM-SF							
	0	13.27	6.64	9.96	4.87	11.78	6.05
	2	7.85	6.13	7.63	3.76	7.75	5.12
	4	7.12	7.17	7.94	6.62	7.49	6.82
	8	5.67	6.98	6.40	5.02	6.00	6.09
	12	5.13	6.62	7.87	6.56	6.37	6.63
PSS-10							
	0	22.00	7.17	19.21	6.16	20.74	6.77
	2	16.17	7.22	16.28	6.19	16.22	6.66
	4	15.11	8.94	17.57	7.53	16.22	8.29
	8	14.29	8.79	15.35	8.44	14.77	8.51
	12	13.05	8.16	15.85	7.68	14.32	7.94
MHS							
	0	45.70	23.46	49.72	13.94	47.51	19.54
	4	60.63	22.36	55.21	17.69	58.18	20.24
	8	65.61	21.08	57.14	21.80	61.78	21.48
	12	68.77	21.62	58.89	20.33	64.76	21.18

This data indicates that overall there was a decrease in the participants' scores on the BDI-II, HDI-SF, and SPSS-10 and an increase in their scores on the MHS.

Figures 7, 8, 9, and 10 offer a pictorial representation of the relative change in the experimental and control groups scores on each one of the dependent variables over the 12 week research period.

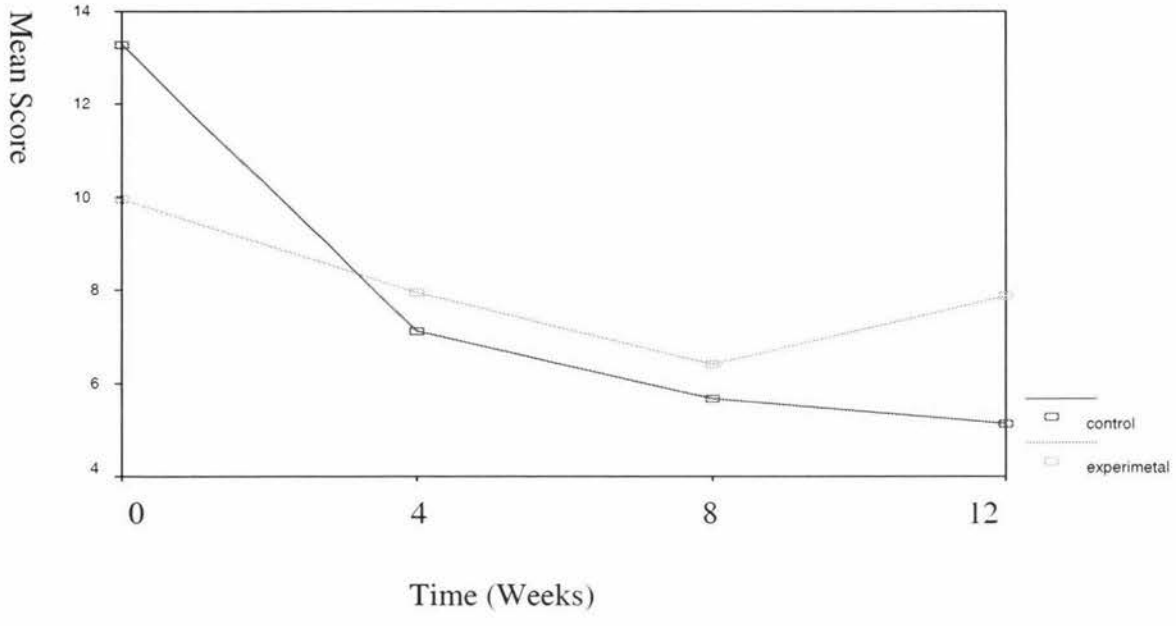

Figure 7. Change in the Experimental and Control Groups HDI-SF Scores Over the 12-Week Research Period.

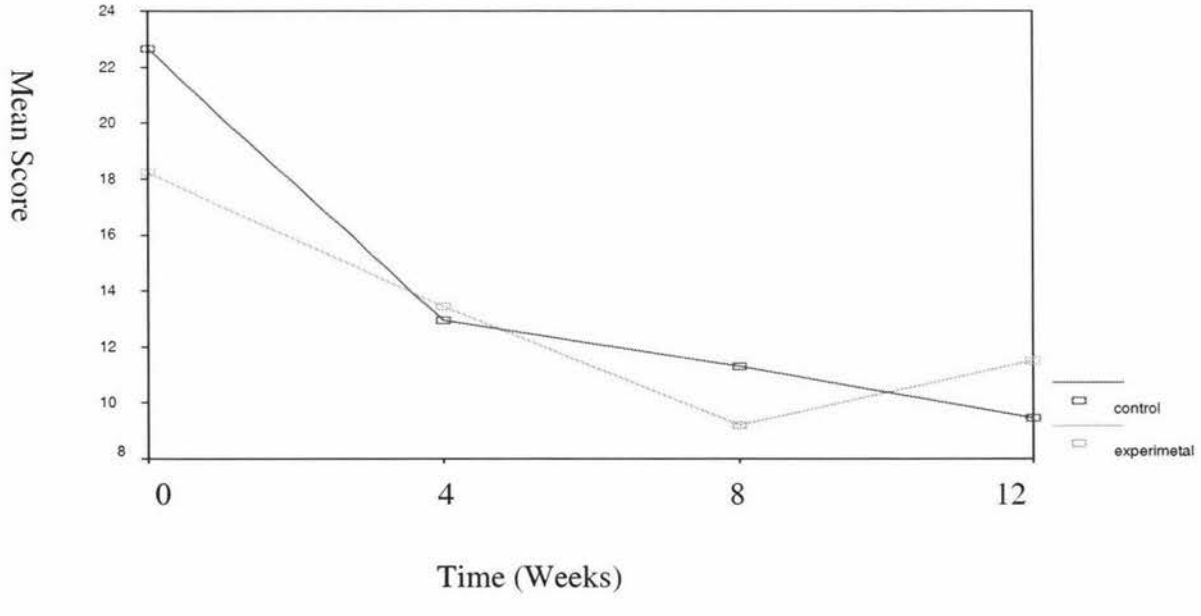

Figure 8. Change in the Experimental and Control Groups BDI-II Scores Over the 12-Week Research Period.

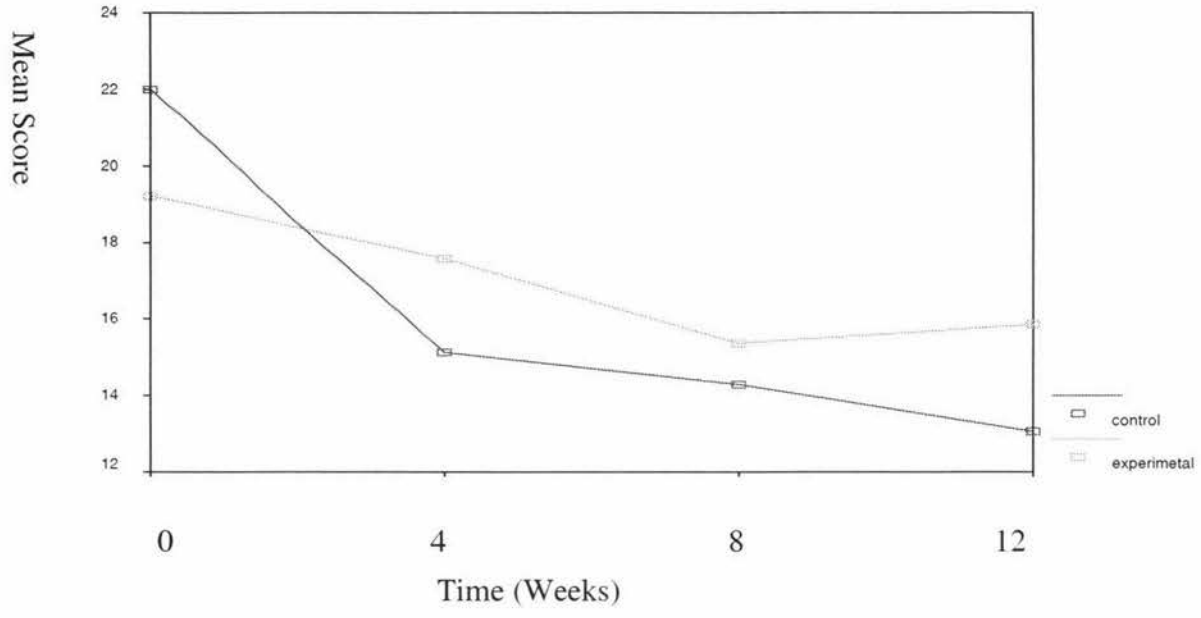

Figure 9. Change in the Experimental and Control Groups PSS-10 Scores Over the 12-Week Research Period.

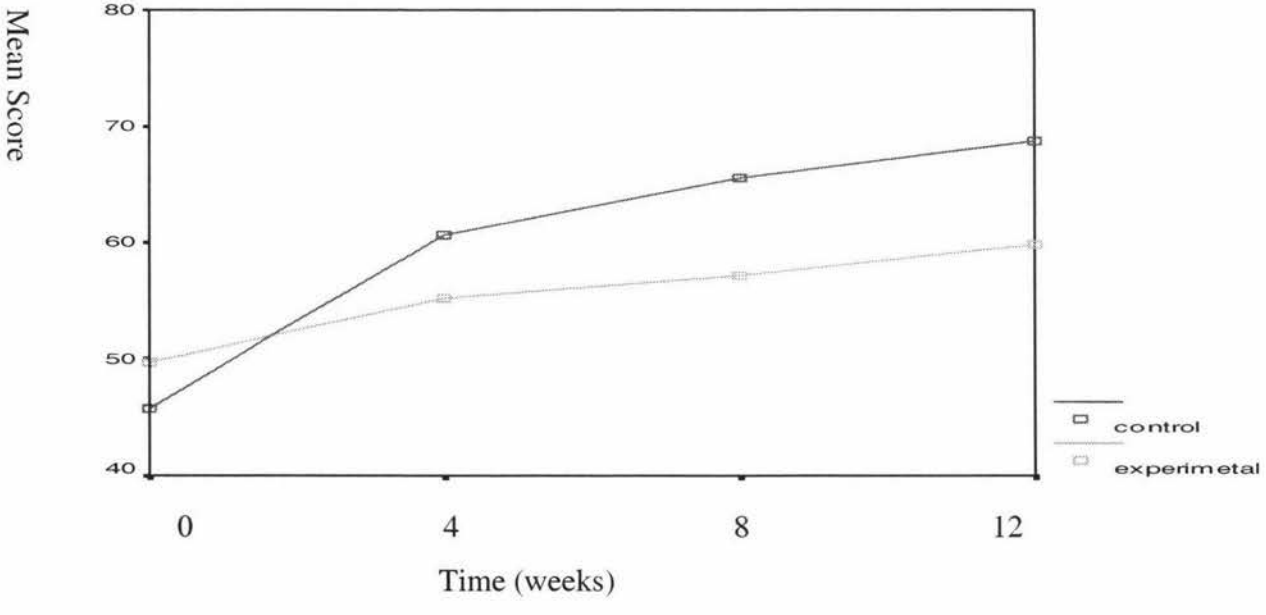

Figure 10. Change in the Experimental and Control Groups MHS Scores Over the 12-Week Research Period.

In order to assess whether these changes were statistically significant and if there were changes in the control and experimental groups over the 12-week research period a one way, repeated measure MANOVA was performed. Four dependent measures were used. These were the participant's scores on the BDI-II, HDI-SF, the PSS-10, and the MHS. The independent variable was the allocation to either the experimental or control group. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with only mild violations noted.

There was a statistically significant main effect for time, Wilks' Lambda = .322, $F(6, 26) = 3.16$, $p<.05$. According to guidelines proposed by Cohen (1988) this effect size is large, partial eta squared = .67. Closer examination of the main effect of time showed that all of the dependent variables significantly contributed to this change with significance levels less than $p < .05$. The results for the group effect [Wilks' Lambda = .891, $F(6, 26) = .79$, $p = .54$] and the time*group interaction effect [Wilks' Lambda = .600, $F(6, 26) = 1.00$, $p = .485$] did not reach statistical significance using an alpha level of $p < .05$. From this analysis it can be concluded that over the course of the study there was a significant increase in all participant's mood and mental health status, as well as a significant decrease in perceived stress. However, there were no significant interaction differences between the experimental group and control group.

These results must be treated with caution. A post hoc power analysis indicated that although there was modest power value of .88 [Lambda = 21.01, critical $F(6, 26) = 2.47$, $p = .05$] for the time effect there were very small power values for the group effect and time*group interaction effect of .18 [Lambda = 3.37, critical $F(6, 26) = 2.47$, $p = .05$] and .63 [Lambda = 12.44, critical $F(6, 26) = 2.47$, $p = .05$] respectively. This data indicates that given the current effect size and relatively small sample size there is not enough power in this analysis to show a significant between subjects effect or interaction effect. This makes the current results regarding the effect of the supplementation on the participants' depression inconclusive.

This research sample represents a small, gender specific, sub-sample of those who will be included in the dietary supplement trial. A thorough examination of the supplements' effectiveness using the complete sample will be presented by analysing the full set of data which includes both male and female participants as well as the

results of the participants' food frequency questionnaires, blood samples and a wealth of other data that does not represent the focus of this study.

Summary.

The aim of this section was to offer the reader a profile of the research sample and to examine the context in which the grounded theory analysis was embedded using a range of descriptive and psychometric data gathered during the course of the 12-week clinical trial. A profile of the research sample showed that the participants experienced different levels of severity of depression, as well as varying levels of chronicity as measured by length of time since onset and continued morbidity. An analysis of the participants' scores on the BDI-II, HDI-SF, MHS of the SF-36, and the PSS-10 indicated that over the course of the study there was a significant decrease in the participants' level of depression. No significant differences between the experimental and control group were detected. Power analysis of these results show that the insignificant between groups effect may be explained by the very small power value as a result of the current effect size and small sample size. A full statistical analysis of the entire sample of participants in the larger project, including results of the food frequency questionnaire and blood samples and compliance rates remains to be done. Therefore, it is not possible at this stage to draw conclusions about the effectiveness of the supplement on depression or to propose alternative hypotheses that explain this pattern of data. Limited quantitative data is provided here. This provides background information as a complement to the qualitative analysis outlining the men's experiences of depression which constitutes the main focus of the present thesis.

CHAPTER EIGHT
DEVELOPING A PARADIGM OF DEPRESSION.

The following chapters will present the local theory that emerged from men's narratives of depression. The conceptual analysis that draws together the men's descriptive accounts of depression will be presented first, and the explanatory data will be presented in the following chapters. Although this is the reverse order in which the data was inductively analysed it offers a clear presentation format.

The basic social process emerging from the men's accounts of depression consisted of 'developing a personal paradigm of depression'. 'Developing a personal paradigm of depression' recognises the evolving nature of the men's conceptualisation of depression and their emerging self-concept in response to the accumulation of experiential knowledge regarding the nature of their distress.

'Developing a personal paradigm of depression' emerged as a substantive code early on in the analysis as the men described their experiences of depression. Almost all of the participants acknowledged their increased understanding of depression, and the self-awareness which had resulted from having experienced depression. As more data was sampled pertaining to this concept it became evident that 'Developing a paradigm of depression' has three central features. Firstly, it is a consequence of the accumulation of experiential knowledge. Secondly, it results in mutually evolving definitions of depression and the self. Thirdly, it informs subsequent utilisation of coping strategies.

The centrality of experiential knowledge to the men developing a paradigm of depression is supported by the significant influence of temporal variables on the men's understanding of depression. When the participants' narratives were compared with one another it became evident that temporal variables such as the time since the first episode of depression, and the number of depressive episodes a participant had experienced were key determinants in the way the men formulated and reacted to their distress.

The selection of this category as the basic social process central to the men's experience of depression was based on the presence of attributes proposed by Fagerhaugh (1986). A core category can be considered a basic social process if it accounts for changes which occur over time, remain intact even when conditions vary

considerably, and if it can account for a large portion of variation evident in the men's behaviour.

The abstraction of 'developing a personal paradigm of depression' from the body of substantive codes is represented by four selective codes which represent the range of experiences that contributed to the men's understanding of depression. These are; 'Experiencing the Symptoms of Depression'; 'Surviving/ Using Personal Coping Strategies'; 'The Experience of Becoming Depressed'; and 'The Experience of Treatment'. Appendix G is a pictorial representation of the relationship between these categories and the body of axial and substantive codes. Each one of the subsequent chapters will examine one of the selective codes in depth and in doing so authenticate the centrality of 'Developing a personal paradigm of depression' as the basic social process.

As a basic social process 'Developing a personal paradigm of depression' consists of two interconnected processes, 'Understanding the nature of depression" and "Accommodating depression with the self". The remainder of this chapter will discuss these processes in depth.

Understanding the Nature of Depression.

- IDENTIFYING THE SIGNS AND ANTECEDENTS OF DEPRESSION
- DEVELOPING A PERSONAL THEORY OF DEPRESSION
- LEARNING TO COPE EFFECTIVELY WITH DEPRESSION

Evident throughout the men's narratives was a progressively evolving understanding of the nature of depression. For example:

> *"The way I think of depression now is very different to how I thought of depression at the start."*

> *"I didn't really know what it was...you don't have the knowledge so you don't really know what it is so you can't really understand it, but then over time you learn more about it."*

A feature of this process was that over time the men developed an increased ability to identify the behaviours and sensations which constituted their depression and the

antecedent factors which prompted a depressive episode. The men's ability to identify the symptoms and antecedents of their depression were closely interrelated with one another and in most cases were described together in the men's narratives. This is illustrated by the following quotes.

> *"now I do see it (depression) as something in its own right, something that has specific signs and is triggered by specific things. "*

> *"Overtime you learn what the symptoms are and what brings you down."*

Comparing the men's ability to identify these features of their depression a dimension emerged of their understanding of depression across a range of temporal variables, including the duration of time since the onset of their first episode of depression and the amount of time they had experienced depression since then. It was common, for the participants who had experienced depression most of their lives to have reached a point, where with confidence, they could identify the manifestations of their depression;

> *"I have an awareness of my depression I've made it tangible and now I know what it is...depression means you don't want to get up in the morning, depression will keep you in bed, depression will make you feel, will make everything you do worthless and make you feel terrible about yourself, and those are things I didn't understand about depression until recently."*

the ability to gauge the severity of their depression;

> *"Sleep is a good indicator for me of how depressed I am, if I can't sleep I know that I am going to have a bad day... that's why I monitor my sleep closely."*

> *"when my depression gets bad I can't talk to anyone I just stay in my room all day."*

and were able to identify specific behaviours signifying the onset of a depressive episode;

> *"I love to read... when I find myself not being able to read I know that I'm about to come down. Sometimes it takes a couple of days but I know it's going to happen."*

Alternatively, examining the narratives of the participants who had only recently been affected by depression showed lesser ability to do this. This was indicated by indecisiveness in differentiating the core signs of their distress from unrelated behaviours.

> *"I never really got any sleep, listening for the slightest noise and getting up, but yeah I was wound up... I don't know if you call that depression or anything."*

> *"I don't think that was depression, I think it was sheer anger and lack of sleep and frustration."*

A consequence of being able to identify the symptoms and antecedent of their depression for the men was 'developing a personal theory of depression'. 'Developing a personal theory of depression' represents the men's attempts to identify the processes that led to the development of their depression. Examples of the men's personal theories of depression are as follows:

> *"how I describe it, there's a triangle with a spinning ball in the middle, and if that ball's in the middle everything's fine, but if it goes from the centre. that's when your depression starts, and that little ball in the middle's got to be in the centre. And I think to keep it in the centre you must look after yourself. It becomes a balance."*

> *"Yeah, the way I describe it, you're walking along and suddenly you come to a brick wall that stops you from going forward, but there's ways over that*

wall... It's caused by things that happened in the past, things in my childhood that I couldn't control. By working through those past event, you can look at the present and you can look towards the future."

When the men's personal theories of depression were compared against one another a range of causal processes were repeatedly identified that have been documented in the technical literature. These included having a genetic predisposition:

"I believe that our family may well have a genetic predisposition towards depression".

"My mother had depression and so does my sister that's why I think I have it."

Neurochemical imbalances;

"I know that this is chemical, well in it is all chemical."

and the stress-diathesis paradigm;

"I know that depression is a chemical thing, but it's a chemical imbalance that is sparked by different things that happen in your life."

As the participants described the processes that lead to the development of their depression it became evident that technical paradigms of depression had a particularly strong influence over the formulation and development of these theories. For example one participant acknowledged that in response to information his doctor told him on the role of cognitions in the development of depression, he was currently re-addressing the way he understood the development of his depression, which he previously thought of as a result of a *"chemical imbalance in the brain"*. As well as being exposed to technical theories as a result of receiving professional treatment for depression a number of men actively sought technical literature on the nature of depression. Professional resources the men had used in the past included, academic text and journal articles, as well as community lectures on mental health issues. The

'accommodation of professional paradigms of depression' by the participants is further discussed in chapter 12, The Experience of Treatment.

The men's drive to understand more about the nature of their distress was a central feature of their experience of depression. As well as reflecting the participants' previous experiences their understanding of depression directly informed the use of personal coping strategies and the nature of the professional management strategies that were sought. Developing a progressively more refined understanding of depression was associated with the adoption of more effective coping strategies that could be used to manage subsequent episodes of depression. The following account illustrates the close association the men made between understanding the nature of depression and developing effective coping strategies.

> *"I needed to know what it was... I needed to understand what was happening to me...over time I found out more and more and now I know what it was and I've learnt better ways of dealing with it."*

Accommodating Depression With the Self.

- ACCEPTING DEPRESSION AS PART OF MY LIFE
- ADOPTING PREVENTIVE COPING STRATEGIES
- FINDING PURPOSE

Evident in all of the participants' narratives were attempts to define the relationship between depression and the self. 'Accommodating depression with the self' emerged from these attempts as an ongoing process by which the men reformulated their view of themselves as a result of experiencing depression.

> *" I had strong beliefs about depression and the people who had it...now I think differently because I have it and I am one of those people."*

> *"You learn about depression and you think wow that applies to me, and then you start wondering how other people see you."*

The accommodation of depression with the self was most commonly associated with the acceptance that depression was going to be a permanent part of the

participants' life and the acceptance that they were going to have to *"live with depression"*. Not all of the participants had reached this conclusion and for the majority of the men who had, this was a gradual process that occurred after considerable time and introspection. This is illustrated by the following quotes.

> *"No I didn't accept it for a long time it wasn't...until... about 1995 that I actually accepted it about ten years later... that I actually accepted that I had depression and it was a part of my life."*

> *"Since the start of feeling depressed it was about six years before I actually accepted that I had it."*

One participant acknowledged the struggle and complexity in accepting depression as a part of his life.

> *"I just thought, oh you know, it will go away like the 'flu or something like that It wasn't till later on that depression was going to be a part of your life, and even for a little while after that I didn't really accept it. It's still taking me time to accept it. It's something that's really hard to do."*

The struggle the participants dealt with in accepting depression as a part of their self-concept was closely associated with the negative stigma the men associated with having a mental disorder. From the men's narratives a picture arose of how men viewed people with a mental disorder. Central to this belief was that there was an internal flaw within these people in that they were unable to handle every day life and need to be taken care of by others.

> *"the stereotype of depression for me was the person who was weak minded. I used to think oh those people can't handle it, they want people to have sympathy for them, they don't want to look at life, you know they don't want to handle life, they want people to handle it for them."*

Other negative connotations the men associated with having a mental disorder included, possessing a *"sinister secret"* and having an *"abnormal upbringing"*. For

the men, accommodating depression with the self meant acknowledging that they possessed these attributes. As a result, the acceptance of depression as part of their life led some men to view themselves as weaker than others. For example:

> *"I felt like I was a weaker person, I was always one of those persons that liked to be strong in mind... I don't consider myself worthy of respect or really deep down any real respect while I have depression."*

It became evident that the men who had accepted depression as part of their lives where able to overcome these stereotypes. An examination of their narratives showed that these men had reformulated their understanding of depression as a result of the experiential knowledge they had accumulated. A common strategy the men used to do this was to reformulate depression as a medical problem rather than a personal weakness.

> *"Depression is an illness, it's not some sort of weakness, or something that you've done to yourself that you should be ashamed."*

> *"It's just like the flu or any other medical problem any one can get it."*

By reformulating depression in this way they came to accept that they were unable to control the onset of their depression and it was something that they were going to have to cope with long term.

> *"That's the thing, you've got no control over depression... I look back, yeah well, sure, there's something I could have done to prevent it, but there's nothing you can do, it's just, you just can't control it so it was something you had to accept and deal with yourself."*

In one case a participant had been able to reformulate his depression as a positive experience that led him to deep introspection which increased self-knowledge and has made him stronger.

"I think it is a positive experience now, I've learnt a lot about it and myself. Its made me more cautious, It's helped me to think before I do anything, so even though it's been bad it's still helped me in some way and its made me stronger."

This participant then acknowledged that just because he had depression it did not make him *"any less of a person"* as *"Some of the greatest people in the world had depression"*.

A consequence of accepting depression as part of the self-concept was the movement away from trying to find a cure for their depression to the adoption of preventative coping strategies.

"Now I accept it, I've accepted it for quite a while as just a part of my life... I've just got to handle it the best I can and part of that is being aware of what you can and can't do"

Four preventative coping strategies were related to accommodating depression with the self. The men described *"taking each day at a time"*. For the men this strategy involved reducing the degree to which they had previously planned their activities. As described by one participant, who regularly used this strategy, the awareness of his depression had made him more cautious about stress he imposed on himself by attempting to plan too far ahead. Furthermore, he was aware that the reoccurrence of depression would disrupt any long-term plans that were made.

"I plan a lot nearer. I might plan one or two months ahead, you know, I might say in two months we might do this, but I won't say oh well in 7 years we're gonna do this. .... I usually plan things day to day. I write down everything in a diary that I do in a day it's sort of like getting a routine going... I find at the moment if I think about my week ahead and I can't control it all you know."

Accumulating a pool of resources that could be called upon when needed was another strategy the men used to cope with depression long term. The men described a variety of resources that they would call on if needed. These included family

members, close friends, mental health professionals, and even other sufferers of depression.

> *"depression, like anything that comes into my mind I can now handle it and if I can't then there's people who can help me. It was really good to know that there were people out there that can help."*

Evident in these men's accounts was the hierarchical structure of these resources. As the men described the resources they could use it became evident that the particular resource they would access would depend on the severity of their distress. For example one man explained that if he was feeling somewhat low he would arrange to meet his friend to talk but if his depression had become severe he would go to his family doctor immediately. By doing this the participant had shown an understanding of what resources were most effective in alleviating their distress

Closely related to accumulating a pool of resources, as a coping strategy was the men's acknowledgement that talking to others was an effective coping resource. Participants' believed that talking to another person about their distress was one of the most effective means of managing depression and preventing future episodes.

> *"being able to talk to someone is most important for anyone to be able to do."*

> *"talking to people helps me get things out before the build up and become worse."*

Although not consciously acknowledged by the men, finding purpose after depression was also commonly employed as a long term coping strategy. The presence of this strategy is reflected in the men's perception that despite the presence of depression they were still able to positively contribute to other people's lives. This was expressed by one man who believed that his role as a teacher helps in the day to day management of his depression.

> *"Like if I'm depressed and I can show people that I'm able to teach them something, it means I am still useful and I can offer this to people."*

Further examples of 'finding a sense of purpose' included one participant's Christian faith and his duty to spread his faith to others:

> *"It helps me to know that there is the lord above us all and he has my path set. I believe this happened to me to test my faith and to help steer others into the divine light."*

Another participant's public speaking raising mental health awareness, while a number of participants found purpose in being a part of the present study.

> *"The reason I wanted to be a part of this study is that it is going to help other people and hopefully stop them going through what I had I had to go through."*

> *"I think being part of the study has helped me it's sort of giving me something to get up in the morning for."*

Summary.

This chapter introduced 'Developing a paradigm of depression' as the basic social process accounting for the men's experience of depression. 'Developing a paradigm of depression recognises the process by which the men's understanding and reactions to their depression are a consequence of their previous experiences of distress.

'Developing a paradigm of depression' consists of two simultaneous processes. 'Understanding the Nature of Depression' represents the men's evolving understanding of depression as they accumulate experiential knowledge. Central to the men's understanding of depression was being able to identify the signs of their depression and formulating a causal account of their depression. From the participants' narratives it emerged that professional paradigms are an important reference that the men called upon to help them understand the nature of depression.

The second process is labelled 'Accommodating Depression with the Self' represents the men's changing self-image as they learned more about depression. For some participants, this process resulted in them accepting depression as a permanent part of their life. This was associated with a movement away from curing depression

to coping with depression long term. A number of long term coping strategies were identified that reflect this transition. These included 'taking each day at a time; 'accumulating a pool of resources'; 'talking to others'; and 'finding purpose'.

CHAPTER NINE

EXPERIENCING THE SYMPTOMS OF DEPRESSION.

Throughout the men's narratives a wide variety of behaviours, thoughts and feelings were offered that accounted for their depression. These are represented by the following axial codes.

Axial codes.

- Functional Deficiencies.
- Loss of Interest.
- Loss of Control.
- Expressions of Depression.

Functional Deficiencies.

- NOT GETTING THINGS DONE
- WORK PROBLEMS

An analysis of the descriptions of depression offered by the men revealed that central to their perception of what constitutes their depression were changes in their behaviour that resulted in deficiencies in their ability to perform tasks the men perceived as important.

> *"just having things to do, not getting them done, spend the whole day sitting round. The weekend would come and go and I'd be back at work on Monday and I'd think, what have I done?... And I would spend my time just wandering about the house in a sort of daze and I'd get nothing done."*

> *"I was getting less and less done at home and at work and what I did get done was done poorly."*

The centrality of functional deficiencies to the men's experience of depression is highlighted by the close relationship between this concept and the men's awareness

of their depression. The men used deficiencies in their functioning to signify the onset of their depression and the remission of their depression. For example:

> *"I'd always been good at it and now for some reason I couldn't do it. For me that constituted a problem."*

> *"I know when I'm getting better...I am occupying myself with tasks, and getting a lot more done."*

For one participant the extent of the functional deficiencies he was experiencing was closely related to the severity of his depression.

> *"the worse my depression gets the less I get done."*

Although functional deficiencies were evident across a range of contexts, including leisure activities, home maintenance, personal hygiene and the ability to care for their children, a context in which deficiencies were most salient for the men was in the work environment. A most common manifestation of these deficiencies was a decrease in the men's level of productivity.

> *"When I get down at work I continue to work, but I'm on probably 50% effectiveness."*

> *"I go to work but I hardly get anything done... I say to people I'll be in a meeting all morning and then sit in my office and do nothing."*

For one participant, the functional deficiencies he was experiencing resulted in an inability to attend work at all.

> *"I wasn't doing any work or turning up and no matter what I seemed to do I just never seemed to get there (work)."*

The salience of the work environment to the men's experience of functional deficiencies was related to the tangible nature of the consequences that were experienced in the work environment as a result of not performing tasks properly or not completing tasks that were required. Examples of the negative consequences that resulted from a reduced ability to function in the work place included demotions with accompanying pay cuts, a significant drop of a commission based salary, and in one case, the loss of a job all together.

> *"For about three years I wasn't working as well and I would lose it really easily. Eventually they asked me to leave."*

Not only did the men place a high degree of importance on success in the work place but also the financial consequences that resulted from occupational deficiencies had an impact on the men's standard of living. Financial consequences the men described included having to sell family assets, move to smaller houses, and reduce the amount of time they had for recreational activities. Although not directly acknowledged by the men the process by which functional deficiencies exacerbated depression through the creation of additional environmental stressors was a central feature of the men's symptomatology. This process was labelled 'symptom driven depression' and is discussed further in Chapter 11, The Experience of Becoming Depressed.

<u>Loss of Interest.</u>

- LOSS OF INTEREST
- PHYSICAL SENSATIONS

The concept "Loss of interest" is represented by the men's accounts of receiving reduced satisfaction from and an increased apathy for activities that the men had previously found enjoyable.

> *"I enjoy going to the gym and playing sport but when I have depression I just can't bring myself to do it."*

The vocational context also featured prominently in this category.

"I just couldn't bring myself to go to work I just didn't care anymore."

This participant then offered a clear description of how this feeling would manifest itself in the work place:

"when a customer would arrive at 3 o'clock in the afternoon and wanting something that night, my reaction was, oh for goodness sake, I can't be bothered with this, I want to go home Whereas before the depression set in, I enjoyed all those challenges, so it did affect my work performance."

As the men described their loss of interest a variety of physical sensations accompanied this perception. These included a decrease in energy and being overcome by feelings of lethargy, exhaustion and tiredness when they tried to take part in these activities.

"I was just physically exhausted. All the time, and that's what stopped me from doing things."

"Just having an overall feeling of tiredness."

"Physically it's when you can't be bothered doing anything. Instead of getting out on bike or going to the gym I would just sit around the house. I was too tired to do anything."

Losing interest in their everyday activities closely accompanied the changes in the men's behaviour and emerged in the in-depth interviews primarily to explain the decreases in functioning they were experiencing.

"The reason I wasn't working as well is because I just didn't care anymore."

"I look back and of course I couldn't do things like I normally could I was to worn out to do anything properly."

Loss of Control.

- FEELINGS OF LOSING CONTROL
- THE FOCUS OF DISTRESS

As the men described the onset of their depressive symptomatology feelings of losing control were strongly associated with these changes. Feelings of losing control emerged primarily as a cognitive response to the men's perceived inability to understand the changes that were occurring, and to act against these changes. Consequently 'feelings of losing control' emerged as the primary focus of the men's distress.

> *"When it starts I feel as though I am losing control... and you can't do anything about it, and it is this lack of being able to control my actions that I found so difficult."*

> *"I felt so out of control when it started to happen. I didn't know what was going on."*

The centrality of 'control feelings' to the participants' perception of distress is supported by the covariation of these two constructs throughout the men's narratives and in the other selective codes. For example, the personal coping strategies spontaneously adopted by the men to manage their distress were aimed at maintaining a sense of control over the changes they were experiencing. Feelings of losing control are present in the men's experiences of becoming depressed and are used to describe the point at which they realised their need to seek professional help. Finally, as the men described their experience of receiving treatment, giving control away was closely associated with the psychological costs of treatment which included feelings of weakness. Alternatively, rebuilding control was a consequence of a functional therapeutic relationship and was associated with successful treatment outcomes.

As the primary focus of distress the feeling of losing control also emerged as a main antecedent in the men's attempts to understand the nature of depression and to learn the means by which it could be managed, as evident in the basic social process 'developing a paradigm of depression'.

"I was out of control and I didn't want that to happen again. That's why I went to the doctor in the first place to sort out what was happening to me."

"I was feeling so bad but I didn't know what it was. After the doctor told me it might be depression I was sort of relieved that I now knew what it was and something could be done about it."

Expressions of Depression.

- USING ANALOGUES
- NOT FEELING SAD

The previous section presents the thoughts and behaviours which constituted the men's depression. Alongside this symptomatology the men used a variety of abstract concepts and analogues to describe the feeling of depression to the researcher. For example:

"Depression is like a brick wall that just falls down in front of you."

"It's like being in a black hole and you can't get out."

"It's like being eaten away from the inside."

"I felt empty."

A prominent feature of the interpretations the men used to describe their depression was an absence of references to a decrease in mood. Feelings of sadness were scarce in the men's accounts of depression. In, approximately 150 pages of interview transcripts and clinical notes the researcher identified two references to the experience of lowered mood. These were *"I just had an overall feeling of sadness"* and *"just feeling really down and depressed"*. In the majority of cases the men did not acknowledge that the changes in functioning and the feelings of losing control were associated with lowered affect. The main focus of the men's distress included tangible signs that they were not functioning as well as normal. For example:

"for me depression wasn't really a feeling of sadness. It was just a feeling of emptiness and an inability to function normally."

The dissociation between the men's descriptions of depression and lowered mood has significant implications for the way the men managed their depression. In the early stages of depression the men had a tendency to view the changes in their behaviour as discrete problems and did not immediately identifying the relationships between such things as their inability to function as well as usual, their tiredness, and being depressed. This is reflected in the following quotes.

"I didn't see the connection between everything that was happening to me. I was just having job problems and that's all I saw."

"When I got told it was depression it all seemed to fit into place...the drinking, the, the problems at home... I never thought of it like that."

As a result the men's attempts to manage these problems were for the most part isolated to specific problems they were experiencing. The strategies the men used to do this are discussed in the following chapter.

Summary.

The men described a range of symptoms that constituted their depression. Four axial codes represent the men's perception of these symptoms. 'Functional Deficiencies' account for the decreases in functioning that the men experienced. Although decreases in functioning were evident across a wide range of contexts deficiencies in the work place were most salient to the men. This seemed to be due to the degree of importance the men placed on their occupations in conjunction with the tangible consequences which resulted from not being able to perform their work properly.

As the men described their depression they acknowledged a loss of interest in activities they had once enjoyed. Further analysis revealed that this feeling was commonly accompanied by physical sensations of tiredness and lethargy.

Feelings of losing control constituted a central feature of the men's depression and emerged as the focus of the men's distress. Primarily feelings of losing control were a response to the changes in functioning the men were experiencing.

The final theme emerging from the men's descriptions of depression included the fact that few references to lowered mood or *"feelings of sadness"* were made as they described the nature of their distress to the researcher. The inability of the men to identify relationships between their symptomatology and the depression emerged as an important feature of the way the men understood and expressed their distress.

CHAPTER TEN

SURVIVING/ USING PERSONAL COPING STRATEGIES.

Throughout their experience of depression the men used of personal coping strategies to cope with the distress they were experiencing. These strategies reflected both cognitive and behavioural techniques and were spontaneously adopted by the men at the onset of their depression.

"I developed behaviours to help me survive the problems I was having."

Axial codes.

- Ideals of Men/ Keeping Control.
- Externalising Attributions.
- Avoidance Tactics/ Hiding Depression.
- Expressing Distress in Socially Acceptable Ways.
- Experiencing Long Prodromal Periods.

Ideals of Men/ Keeping Control.

- BEING STRONG AND IN CONTROL
- BEING INDEPENDENT
- BEING COMPETITIVE AND SUCCESSFUL

A central characteristic of the coping strategies employed by the men was the way in which they were a response to the rigid gender-sanctioned standards regarding the way they should be. Evident across the men's narratives was the endorsement of three ideals central to their perception of themselves as men. Firstly, the men believed that they should be strong and able to control themselves at all times, and that showing signs of vulnerability or struggle is a sign of weakness and considered taboo. As a result of this ideal almost all of the participants believed that, for men, there are no socially acceptable ways of expressing distress and that such feelings should be hidden from those around them.

"most men hide their feelings because it's not manly to show their vulnerability and men tend not to have close friendships with other men where they talk about their feelings. It's just not part of men's talk."

A common assumption accompanying this belief was that if signs of distress were shown one would be socially ridiculed.

"Men can't talk about their feelings because then that makes them weak to others. If a man starts crying and opening up his feelings he'd be laughed out of the frigging room... you've got to hide that very, very strongly if you want to survive."

Congruent with ideal of being strong and in control of themselves, the men also expressed the need to be independent and possess the ability to overcome personal problems, including depression, without the help of others.

"there was a strong streak in me which said you should be able to fix this yourself."

Thirdly, being *"competitive and successful"* are central qualities of being a man.

"Men always have to compete with each other it's just the way it is."

"I was all the time competing and competing and competing... I always wanted the best."

For a number of participants this ideal was associated with the expectation that men should be able to get everything right without previous failure.

"I was brought up to believe in getting everything right the first time."

"I had to be the best. Failure was never an option for me."

In response to these gender specific ideals three types of coping behaviour were employed by the men: 'Externalising attributions', 'Avoidance tactics/ hiding depression', and 'Expressing distress in socially acceptable ways'. Over all these strategies offered the men a sense of control over the changes they were experiencing and minimised any chance of receiving external assistance for their depression.

The use of these techniques was evident throughout the men's narratives and seemed to occur spontaneously with the onset of the men's distress. The spontaneous nature of these strategies suggests that, at least initially, the gender-sanctioned beliefs that drove these behaviours were outside the men's awareness. By making comparisons between the men's narratives it became evident that the men who had experienced depression long term were more likely to develop an awareness of these ideals and to retire these strategies in favour of the long term coping techniques. The variation between participants in their use of coping strategies reinforces the progressive nature of accommodating depression with the self and the centrality of developing a paradigm of depression as the basic social process.

Externalising Attributions.

- BLAMING ENVIRONMENTAL STRESSORS
- BLAMING OTHERS

A strategy evident across the men's narratives was to explain the deficiencies in their behaviour using external attributions. This involved the men justify the problems they were experiencing as a logical response to environmental events. This strategy maintained the men's sense of self-control by reducing their perceived contribution to the problem. The following provides an example of this pattern of thinking.

> *"To me it was perfectly logical to be depressed because I had a lot of things to be depressed about."*

> *"When it first happened I just thought it was due to all the things that was happening to me at the time."*

Two types of externalising attributions were evident in the men's narratives. The first of these was to identify environmental stressors as the cause of their distress. Environmental stress as identified by the men included relationship problems, the stress of bringing up a family, financial strain, and work related problems. By far the most common of these was work-related problems. For example:

> *"so it wasn't really at that stage depression, it was just, well it was, but it was classed as just being stress ...it's just the stress from the job, it wasn't actually really depression, it was more the stress of the job."*

Secondly, the men attributed the source of their distress to problems other people were having. Targets of the men's attribution included family members, friends, and work colleagues. For example:

> *"Because in my mind she was the grumpy one and she was the moody one...the problem lied with her and I was fine."*

> *"She wasn't supporting me like she should have that's what the problem is...I came second to her."*

The tendency of the men to attribute environmental stressors as discrete problems rather than antecedent factors in the development of their depression emerged as a central characteristic of the way the men understood and managed their distress.

<u>Avoidance Tactics/ Hiding Depression.</u>

- NOT TELLING PEOPLE
- AVOIDING SITUATIONS

Evident in the participant's narratives were attempts to hide their depression from those around them. The men used two avoidance strategies to do this. Most common was the men's failure to inform those around them that there was something wrong. It was common for the participant's parents, children, and friends never to find out that they were affected by depression. This was illustrated by the men when asked

what their friends and family thought after they had received a diagnosis of depression:

> *"They didn't know I received a diagnosis of depression and I suppose they still don't know...I've just never told them."*

> *"I have never told anyone about my depression. The people who know are my doctor, my wife and you, my kids don't know. I just don't want people to know I have this pain."*

A number of men also admitted that they had lied to mental health professionals in order to avoid disclosing the problems they were experiencing.

> *"I used to lie to the doctors and I used to lie to the specialists, I just didn't want to tell them I was having problems."*

The phenomenon of not asking for help was a common feature of the men's coping strategies and didn't seem to be related to not knowing what resources were available or an inability to access these resources:

> *"so the back up is there, we just never asked for it....so in a lot of ways they couldn't help me."*

In order to hide their depression the men would also avoid situations where the changes in their behaviour might be detected. A technique used to do this was faking a physical illness in order to avoid work or social situations.

> *"I would just tell my boss I was sick and needed to go home... I would hold it together until I got home. That's happened a couple of times."*

In one instance a participant admitted leaving the country to avoid others finding out about his depression.

I left to go to (omitted place name), I wanted to get away, I tell you why, I actually wanted to get away from (omitted place name) because I just couldn't face the people who might have known I had depression."

Expressing Distress in Socially Acceptable Ways.

- EXCESSIVE DRINKING
- ANGER/ AGGRESSION/ VIOLENCE

Throughout the men's narratives a number of behaviours were identified which allowed the men to deal with their distress without questioning the ideals they held. Excessive drinking and substance abuse were common behaviours the men used to do this. The majority of the men responded to their distress with increased alcohol consumption. For the participants drinking emerged as a way in which the men could artificially alter their mood in order to relieve themselves from their distress for a period of time. This is reflected in the following narrative.

"Yeah, it was also the only time I could ever feel relaxed and happy when I was actually totally blind drunk and I knew that I could get to that feeling, and living to get to that feeling used to get me through the days... I've never ever said I'd drunk for the taste, I've never liked that, I've always drunk for the effect."

Anger and acts of violence were also perceived by the men as a legitimate way of purging their distress. Descriptions of anger included both verbal and physical outbursts against family and friends, physical altercations in public places, reckless driving, and the destruction of property. One participant offered the following description of how he used anger to express his distress.

"Oh I just lose my temper, I throw things, I lose all part of the truth, I just get really really angry and sometimes I sort of, my mind sort of blacks out ... I do something and I won't realise I've done it... For me it was just an excuse to get the pain out."

In some instances the men actively sought situations were they could express their anger. For one participant the work place became a situation where he could purge his distress as anger on subordinate employees.

> *"I got to work, I was just waiting for someone to say something, so I could just explode because I was already wound up and that was no good at all...it was sheer anger and frustration."*

Family members were also used for this purpose.

> *"I'd come home really worked up and no one would say a word. They new that I was going to go off at them for something if they did."*

One participant who acknowledged the use of this strategy suggested that his anger was a response to an inability to control the distress being felt.

> *"I think anger's to do with the frustration of knowing you have depression and being unable to handle it. It's when one's own feelings of negativity come out as an attack on somebody else."*

Although the three types of spontaneous coping strategies are presented separately in most instances these behaviours were used simultaneously by the men to maintain the beliefs they held. For example, for one participant the use of anger not only allowed him to express his distress but also enabled him to hide his depression from those around him.

> *"Attack is the best means of defense. Like, if you're so mad about yourself that when somebody else attacks you, you know you feel like you're guilty so therefore you've got to yell like hell you know you've got to take the fight to them before they can expose the fatal flaws that you know you possess."*

<u>Experiencing Long Prodromal Periods.</u>

As a consequence of the participants' drive to maintain a sense of control over their problems and to limit external assistance, it was common for the men to

experience long periods of distress before receiving help from a professional. In most cases the participants recalled a five to 10 year gap between identifying the first signs of depression and receiving professional assistance.

> *"Now I look back I think I had depression about ten years before I went to the doctor about It."*

> *"I've had depressed feelings as long as I can remember but it wasn't treated until my early twenties when it started to interfere with my work life."*

In one instance a participant experienced a 15-year prodromal period before receiving help for his depression. During these prodromal periods the men experienced an increase in the severity of their depression. This is discussed in detail in the following chapter.

Summary.

In response to the changes in functioning occurring in their lives the men adopted spontaneous management strategies. The strategies and tactics used by the men to cope with their depression were driven by ideals the participants held as central to being a man. These included: being strong and able to control the things that happen to them and that showing signs of vulnerability or struggle is a sign of weakness and considered taboo; men should be able to handle problems without the help of others; and being competitive and successful are central qualities of being a man.

Three spontaneous coping strategies evident in the men's narratives were associated with these beliefs and allowed the men to maintain a sense of control over their distress and to minimise external assistance that was being offered to them. These coping strategies were labelled 'Externalising attributions', 'Avoidance tactics', and 'Expressing distress in socially acceptable ways'. The use of these strategies by the men contributed to them experiencing long prodromal periods of depression.

CHAPTER ELEVEN
THE EXPERIENCE OF BECOMING DEPRESSED.

An aspect of depression described in-depth by the participants was the experience of becoming depressed.

Axial codes.

- The Progressive Build up of Depression.
- Reaching a Point.

The Progressive Build up of Depression.

- DEPRESSION AS A DOWNWARD SPIRAL
- SYMPTOM DRIVEN DEPRESSION
- PROBLEMATIC COPING STRATEGIES
- PRESSURE TO DISCLOSE
- MISUNDERSTANDING OF OTHERS

As the participants experienced the onset of their depression it became evident that for the majority of the men the transition into depression was a long and progressive process. As mentioned previously, it was common to experience five to 15 year prodromal periods. Furthermore, over this period their depression became progressively worse. A common analogy the men used to describe the progressive nature of their depression was a *"downward spiral"*.

> *"It's like a downward spiral, it feeds on it's own tail... and it just gets worse and worse."*

> *"it just gradually built up from that time over a period of 5 years. I describe it like a downward spiral."*

As well as being described by a number of men, the downward spiral analogy was also depicted in diagrams drawn for the researcher to explain the development of depression for one participant. In this instance the participant used the downward

spiral analogue to describe that his depression grew it gained momentum and became harder to manage.

> *"Once you get into a downward spiral it gets quicker and quicker and harder and harder to fight back."*

As the men's individual accounts of the progressive build up of depression were analysed together, two mechanisms leading to the build up became evident. It emerged from the participants' narratives that the symptoms of distress described by the men interacted with each other to intensify their depression. As previously mentioned, the functional deficiencies the men experienced as a result of their depression led to additional stressors such as financial loss and a decrease in their standard of living. The occurrence of additional stressors contributed to the men's feeling of losing control, amplifing their distress and leading to further decreases in functioning. The 'symptom driven' nature of the men's distress is evidenced by the following quotes.

> *"As a result of depression I had to give up work. This is the worst thing that could have happened. I ended up sitting around the house doing nothing, feeling useless which made it even worse."*

> *"where you can't do things like round the house and stuff, you know they should be done but you just can't get yourself to do them and it makes you feel bad, so that sets the depression worse so you are likely to do even less."*

It became evident that the spontaneous coping strategies employed by the men also contributed to the progressive build up of their distress. A range of negative consequences that resulted from the men's personal coping strategies included the creation of additional 'problematic behaviours', 'pressure to disclose', and 'misunderstanding of others'.

Problematic behaviours resulting from the men's attempts to manage their distress were most closely related to the use of alcohol and other substances as well as the use of anger and violence to express their depression. Negative consequences

associated with these behaviours included criminal convictions, alcohol dependency, domestic violence and physical injury.

Pressure to disclose the nature of their distress came from those close to the men who had identified changes in their behaviour and made attempts to raise this issue with the men. However, this is incongruent with the men's own drive to conceal the problem.

> *"there's nothing worse than when you're really down in the dumps having people going what's wrong with you today and knowing something is wrong ... you know, it just drags you even further down."*

The pressure the men felt as a result of this commonly led to confrontation and an overreaction by the men to these claims. This further fed the persons' belief that something was wrong, and made the situation worse.

> *"I basically told him where to go and my reaction was so severe I think a couple of my friends realised there was something more here than just somebody who wasn't doing something because he didn't want to do it."*

In other situations people close to the participants had identified changes in the men's functioning but misinterpreted the nature and extent of the problem. Combined with the men's drive to conceal the nature of the problem this led to misunderstanding, which also contributed to escalation of the men's depression.

> *"But people can't see depression and one of the things that I remember when I consider my depression was at its worst was people would criticise me for being,... bad tempered, because I had been a fairly quiet and reasonably understanding type of person, what people saw in me was a change of mood and they just thought I must have had a late night, I was hung over or whatever, so their response was not one of being supportive because they didn't realise that there was anything wrong."*

For the men who had stopped using these coping strategies in favour of more adaptive strategies, such as those identified in the section 'Accommodating

depression with the self', the most distressing consequence of trying to cope with their depression themselves, which led to the build up of their depression was the reduced social support they received.

> *"I found that over those years you bottle them up, you're bottling them up, you don't talk to anybody and because I avoided the people that could help me it got worse."*

In retrospect, these men admitted that by informing those around them and mental health professionals of their distress earlier, they would not have experienced such a long and progressive build up of their depression.

> *"If I had told people sooner about what was happening ..., got treatment sooner, it would not have been so bad."*

> *"The advice I would give anyone is to do themselves a favour and get treatment as soon as they feel something is wrong. So it doesn't build up like it did with me."*

Reaching a Point.

- REALISING THE NEED FOR HELP
- FACING SIGNIFICANT LOSS

Evident in all the men's narratives was the experience of their depression building up until it reached a point where they accepted that something was wrong. For the majority of men this point was indicated by an inability to use their personal coping strategies to manage the problem as it had reached a pathological level that could no longer be explained by external circumstances or hidden away.

> *"You know it sort of came to a head really...I was sitting in the spa pool one night and I started crying, just crying and crying and I couldn't stop... that's the first time I kind of realised that there was something there and that I needed help."*

"My behaviour was so extreme that people were starting to realise that it was more than being grumpy something was very wrong."

"The boss confronted me one day and said that she had noticed I hadn't been working as well as usual. She new something was wrong."

This point was normally accompanied by the realisation that professional help was needed to help manage the situation.

"it got to the stage where there was obviously something wrong...despite what I had tried in the past, I suddenly became horribly aware that yes, I needed to go to a doctor."

"After failing for the second time I came to the conclusion that I was going to have to get help for it."

The men identified a variety of behaviours which indicated this point. A theme that ran through these behaviours was the sense that the men had lost control and, if their present situation was allowed to continue, they would be facing significant loss of the things the men felt important to them.

"It's manly to put on a brave face, so men hide feelings, and it's not until something goes horribly wrong that it brings it home to you, hey, if you don't sort it out you are going to lose what's important to you."

For this participant this point was reached when he hit his child:

"Things came to a head...I flew off the handle and took a swing at him and it was after the event, some time after the event that I sort of came to my senses and thought, what happened, because I could see the look of absolute horror on his face, this is not my father, why is he treating me in such a different way. And I realised then there was something wrong."

For another it was reached when he was no longer able to face work.

"I couldn't get out of bed, I woke up one morning, I was on late shift 1-9 ... I woke up at probably 9 in the morning and I just couldn't get out of bed, there was no way and, it's hard to imagine looking back now that someone can't get out of bed, but I know for a fact that back then I couldn't get out of bed, you know, I was there for the day."

Other behaviours that led the men to realise something was wrong included suicide attempts, criminal convictions, acts of violence, physical collapse, relationship break ups such as divorce, job loss, failing university, and in one case the prospect of being involuntarily committed to a psychiatric ward.

"Locked up Manawaroa patients, there was no way I was going to become one of them and so that led me on to constant visits to a doctor, psychologists and psychiatrists."

Summary.

The men commonly used a downward spiral analogy to describe the progressive build up of depression and their decreasing ability to cope with it. Related to this category were a number of processes that led to the build up of depression. These included additional stressors resulting from decreases in functioning; the problematic nature of the behaviours the men used to cope with their depression; pressure the men felt to disclose their depression to others; and the conflict and frustration that arose from others misinterpreting the nature of the men's distress.

Almost all of the men in study described the build up of their depression until it reached a point where they came to realise that something was wrong. This was described as the point at which the problem could no longer be externalised or hidden from others and if the situation was allowed to continue they would face significant loss.

CHAPTER TWELVE
THE EXPERIENCE OF TREATMENT.

Receiving professional treatment was described throughout the men's narratives. This experience is accounted for by the following axial codes.

Axial codes.

- Wanting and Not Wanting to Receive Treatment.
- The Therapeutic Relationship.
- Accommodating Professional Constructions of Depression.

Wanting and Not Wanting To Receive Treatment.

- WANTING TO GET BETTER
- NOT WANTING TO GIVE CONTROL AWAY
- ARTIFICIAL/ SHORT TERM CHANGES

The category of *"wanting and not wanting to receive treatment"* represents the positive and negative expectations of treatment held by the participants' which resulted in an indecisiveness to receive external assistance for their depression. For the majority of men the realisation that professional help was needed to manage their problem was accompanied by a reluctance to accept external assistance. This category was most commonly illustrated by the men as they described their first experience receiving treatment for depression.

> *"I knew I needed help I just didn't want to get it."*

> *"The first time, I went to the doctor kicking and screaming...I knew I had no other choice, I just didn't want to go."*

> *"Although I went to the doctor and did get better, to me the cure was worse than the disease."*

The participant's struggle with wanting and not wanting to receive treatment was related to the costs and benefits the men associated with receiving external assistance to manage their depression. For the majority of men, the most salient benefit of receiving professional treatment was with the expectation that their depression would get better. This was expressed in all eight in-depth interviews. For example:

> *"I knew that the sooner I started receiving some sort of treatment, then the sooner I was going to get better and start to get on with life."*

In addition, a number of men believed that by talking to a trained professional they could learn more about the nature of depression and be more equipped to deal with it in the future:

> *"The initial feeling was one of huge relief. Although I didn't at that stage understand much about depression I could learn more and there were things that could be done to help the situation."*

Offsetting the men's motivation to receive treatment was the perception that they would have to relinquish control of the situation to another person. This is represented by the concept 'giving control away'. Almost all of the participants' expressed the belief that receiving treatment meant that their attempts to control the situation had failed and as a result control of the situation had been removed from them.

> *"I had no control ...Some one else is changing life for you, people out there are trying to help you, they're changing your life, you're not changing it yourself"*

These men believed that the process of treatment was going to *"change who they are"*. This attitude is succinctly illustrated in the following quote.

> *"I had a fear that they were going to change me"*

'Giving control away' was also associated with the men's belief that to effectively manage their depression they had to make changes themselves and a fear that changes initiated by professional treatment protocols could only produce *"artificial changes"* that were only effective in the short term.

Making comparisons between the participants' narratives indicates that the negative expectations of treatment initially held by the men became less salient with subsequent experiences of treatment. This change was accompanied by the belief that the man, rather than the clinician, was the driving force behind the changes that were made. This is illustrated by a number of participants when the researcher asked if their perception of treatment had changed over time.

> *"I know now that treatment is what you make it to be...and you are the most important bit. I used to think that they were going to screw with my mind...I don't think that now."*

> *"Something I say all the time now is if it's going to be it's up to me ...this applies to treatment."*

The Therapeutic Relationship.

- POSITIVE AND NEGATIVE TREATMENT EXPERIENCES
- TALKING TO PEOPLE ABOUT DEPRESSION

The therapeutic relationship featured prominently in the men's experiences of treatment. As the men described relationships with mental health care providers it became evident that developing a *"strong"* relationship with their mental health care provider was an important part of effectively managing their depression. People the men turned to in order to receive help for their distress were most commonly general practitioners, clinical psychologists, and psychiatrists but also included school counsellors, church leaders, social workers, and psychiatric nurses. The importance of the therapeutic relationship was illustrated by the participants' references to particular mental health care providers that either *"changed their life"* for the better or were detrimental to the men's treatment process. For example:

"He really backed me up and got me through the hard times. Without him I think I would be a lot worse today."

"(Omitted name) ruined me it was the worst experience I have had...she made it so much worse."

In one instance a participant believed that being forced to see another practitioner reversed significant advances that were made under the guidance of his first therapist.

An analysis of the men's narratives describing positive experiences with mental health care providers indicated that talking to someone who showed empathy for their situation was an important feature of this experience.

"It doesn't matter who you are, it's human contact and understanding, just human contact with someone who vaguely cares."

One participant described the importance an empathetic relationship by making a distinction between pharmacotherapy and talk therapy.

"talking to a therapist who understands what I am going through helps me...and learn more about who I am. Drugs on the other hand are just a generic measure that may only help your depression in the short term."

As the men described the relationships they had formed with mental health care providers it became evident that an important factor in the effectiveness of the therapeutic relationship for the men was being able to have a say in the therapeutic process. This included being able to make decisions about the course of therapy as well as the duration and frequency of the therapy sessions. For the men this gave them a sense of control over their treatment process and ownership of the corresponding benefits.

"With (omitted name) we worked it out together... he told me what the options were and we decided together. It was great and at the end of it I was so much better.. I had done some of it myself."

"I could control the process myself and that really helped my recovery."

Accommodating Professional Constructions Of Depresson.

- IDENTIFYING EFFECTIVE AND INEFFECTIVE TREATMENTS
- NON COMPLIANCE

As indicated by previous chapters all participants had developed an understanding of their depression and had made attempts to manage the problem themselves before seeking receiving professional assistance. In light of this, when receiving professional assistance for their depression the men had to accommodate their clinician's paradigm of depression with their own. For the men a primary process in doing this was learning which professional treatment protocols were most effective in managing their depression. This category emerged from the data as the men described the various types of treatment they had been exposed to since the onset of their depression. The most common type of treatment the men were exposed to was the prescription of antidepressant medication by their general practitioner. Other forms of treatment the participants had experienced since the onset of their depression included cognitive behavioural therapy, hypnotherapy, psychodynamic therapy, pharmacotherapy, and family therapy. These treatment approaches were offered to the men through a number of different mediums, such as individual and group settings, as well as via audiotapes and videotapes.

As a result of being exposed to a variety of treatment protocols the majority of men became aware of what forms of treatment were most effective in managing their depression and gained a preference for these approaches. Likewise, the men learned which treatment protocols were ineffective in managing their depression.

"The drugs just don't work for me. It took a while to find out but now I know."

"I went to hypnotherapy... after about five sessions I was having nightmares and was more depressed than before. I would now tell anyone with depression to keep the hell away from hypnotherapy."

This process is also illustrated by one man who strongly debated taking antidepressant medication, as he believed that lifestyle would be more effective in alleviating his depression.

> *"I am meant to be taking tablets that my doctor prescribed; well I'm not getting any treatment really. I need to sort out my living situation... For me the drugs are like hitting a T.V on the head when it goes fuzzy, it doesn't fix the problem."*

As the men became aware of which treatment protocols were effective in alleviating their depression they selectively accommodated the respective etiological theories with their own experiential knowledge. This information was then used by the men in formulating their 'personal theory of depression'. By making comparisons between the men's narratives it became clear that congruency between the men's personal theory of depression and their prescribed treatment protocol was a key determinant in their rate of compliance. Almost all of the participants described situations when they terminated treatment early or failed to stick to the prescribed treatment protocol. It became clear that in these instances the men did not expect the treatment to work.

> *"My boss tried to get me to go on this course to help me, I didn't go though...I knew it wasn't going to work."*

> *"The doctor took me off the medication because I wasn't taking it. I know my depression is not a chemical imbalance has to do with my problems at home."*

Non compliant behaviours included, not taking medication, not turning up to interviews with their mental health care provider, and not following therapeutic instructions accurately. In one instance, a participant's non-compliant behaviour resulted in miscommunication, and a number of arguments with his mental health care provider. Consequently, receiving professional treatment for this participant was a considerably stressful experience.

Summary.

This section summarises the men's experience of treatment. In general the men associated receiving treatment for depression with a range of cost and benefits. For the participants, the main benefit associated with receiving treatment for depression was the chance that their depression would get better. Alternatively, the cost of coming to treatment was having to give control away to someone else. By gaining more experience being treated for depression, these initial expectations became less salient to the men.

Throughout the men's narratives there were frequent references to the therapeutic relationship. The importance of the therapeutic relationship in the men's experience of depression is indicated by the stories of mental health providers being a key in the men's recovery as well as negative feature of the men's treatment.

As the men were exposed to a variety of treatment types they began to differentiate treatment protocols that worked for them from those that didn't. The men's expectations regarding the effectiveness of a treatment protocol was a determining factor in their compliance.

CHAPTER THIRTEEN
DISCUSSION.

This chapter will discuss the main themes and concepts emerging from the men's personal experiences of depression in relation to the previous technical literature on male depression. Firstly, the way the men expressed, coped with, and perceived attempts to treat their depression will be examined. Secondly the process 'developing a personal paradigm of depression' will be explored. The chapter will finish by highlighting the limitations of the study and the implications of the present findings for researchers and clinicians.

The Expression of Depression in Men.

The men identified a range of symptoms that accounted for their experience of depression. These are represented by the following conceptual categories: decreases in functioning; a loss of interest in activities which was accompanied by feelings of tiredness and lethargy; feelings of losing control; and using analogues to describe their depression. In describing their symptoms the participants made few references to lowered mood as this was not a salient feature of their distress.

The symptoms the men used to describe their depression are congruent with the concept of masked depression which has been previously used to describe the way men present with depression. An examination of the men's narratives indicates that inclusive definitions of masked depression are more relevant to the men's personal experience of depression than exclusive definitions, as a wide variety of physical and psychological behaviours were described by the men as signs of their distress. Symptoms evident in the men's narratives that have been previously identified as characteristics of masked depression were feelings of anger, problems in work situations, substance abuse, as well as changes in interpersonal behaviour such as social withdrawal and aggressiveness towards others. (Reissman, 1990; Vredenberg, Krames, & Flett, 1986; Avison, & McAlpine, 1992; Perugi, et al., 1990; Young, Fogg, Scheftner, Keller, & Fawcett, 1990; Barbee, 1996). In addition to reflecting masked depression the symtomatology identified by the men is also congruent with aspects of the DSM-IV diagnostic criteria for depression. Diminished interest or lack of pleasure in daily activities is a core feature of the DSM-IV diagnostic criteria

alongside loss of energy or fatigue. These symptoms were evident in the men's narratives and were labelled 'loss of interest' and feelings of 'tiredness' and 'lethargy'.

These findings indicate that aspects of both the DSM-IV diagnostic criteria for depression and research on masked depression are important in understanding the way the men expressed their depression. However, further analysis of the men's personal experiences indicated a directional relationship between these typical and atypical features of depression. A number of the men believed that the atypical symptoms they were experiencing, such as decreases in functioning, and problems in the work place were primarily a consequence of their diminished interest in activities they once found enjoyable and feelings of tiredness and lethargy. It is therefore possible to argue that although men do commonly present with atypical signs of depression typical symptoms of depression, in particular anhedonia and somatic complaints are central features to the male experience of depression. This finding supports a recent suggestion by Pollack (1998) and Cochran, and Rabinowitz (2000) that clinicians should use both diagnostic criteria and signs of masked depression to identify male depression. Attempts have been made to identify a range of clinical features of masculine depression which can be used in conjunction with main stream diagnostic criteria in assessing depression in men. A number of these features were evident in the men's narratives. These include strain between gender role expectations and performance, particularly in the work place (Good, & Wood, 1995); anger and increased interpersonal conflict, (Frank, et al., 1988); withdrawal and decreases in social contact (Oliver, & Toner, 1990); alcohol and substance abuse and dependence (Grant, 1995); and difficulties in concentration and motivation (Maffeo, et al., 1990).

In addition to these recognised clinical features of male depression feelings of losing control emerged as a central feature of the men's personal experience of depression. Feelings of losing control emerged primarily as a cognitive response to the men's perceived inability to understand the changes that were occurring, and to act against these changes. Furthermore, feelings of losing control were the main antecedent in the men's attempts to understand the nature of depression and to learn the means by which it could be managed. However, control feelings have not been previously endorsed as a specific feature of male depression. The present findings suggest that feelings of losing control should also be included as a clinical feature of male depression. One possible explanation for the lack of research examining the

relationship between control feelings and masculine depression may be the overemphasis on examining the behavioural features to the detriment of the core emotional features of depression (Downing-Orr, 1998).

From an analysis of the men's experiences it became evident that the atypical expression of depression led to its build up over time. This process was labelled 'symptom driven depression'. An example of this process was the tendency of those around the men to misinterpret the changes in their behaviour as either being grumpy, hung over, antisocial, or obnoxious. This was damaging for the men and resulted in the creation of additional stressors such as job loss, relationship break ups, social withdrawal, and financial loss, resulting in a some what of a "vicious cycle" leading them into long prodromal periods and further depression. The presence of this process in the men's personal experiences compliments the existing technical research examining the relationship between the build up of depression and the expression of atypical symptomatology. This body of research has shown that because the behaviours associated with masked depression do not reflect the typical signs of depression these behaviours are normally not identified as such and result in the exacerbation of depression over time and long prodromal periods (Lynch, & Kilmartin, 1999).

Another possible explanation for the build up of depression over time associated with the way the men presented with depression can be drawn from the men's narratives. In the early stages of depression the participants did not immediately identify changes in their behaviour as inter-related components of depression. As feelings of sadness and lowered mood were not a central feature of their experiences the men tended to perceive the symptoms they were experiencing as unrelated problems and made attempts to manage them in this way. This hypothesis is supported by previous research examining the presentation of masked depression in men. Such research has shown that due to the gender socialisation of males, men are less psychologically orientated, less verbally expressive and less willing to acknowledge emotional distress. It is believed that this makes it more likely that men will dissociate themselves from emotional distress, and use acting out behaviours as an outlet for their distress (Lynch, & Kilmartin, 1999). Furthermore it is believed that for the most part this process occurs outside the individuals' mental awareness (Levant, 1995). This may also explain why the men experienced long prodromal periods of depression before receiving appropriate treatment. This feature of the

men's experience offers a new insight into the processes that underlie the masking of depression in men and suggest that by making men aware of the interconnectedness of the problems they are currently experiencing it might be possible to encourage them to receive assistance earlier rather than managing each problem in isolation.

In summary, the findings of the present study show that men express atypical as well as typical signs of depression. Diminished interest or lack of pleasure in daily activities and a loss of energy or fatigue emerged as a central feature of the men's depression alongside atypical signs of depression such as changes in functioning, feelings of anger, problems in work situations, changes in interpersonal behaviour as well as making few references to lowered mood. This finding supports recent attempts to identify the unique clinical features of masculine depression which can be used in conjunction with traditional diagnostic criteria to identify depression in men. Clinical features of depression which have been identified by previous studies and are consistent with the participants experience of depression include: strain between gender role expectations and performance, anger and increased interpersonal conflict, decreases in social contact, substance abuse, and difficulties in concentration and motivation (Maffeo, et al., 1990). The men's narratives also support research showing that the atypical expression of depression results in a build up of depression over time and suggests that the inability of men to identify the interconnectedness of their problems may contribute to this build up.

The Way Men Coped With Depression.

It emerged from the data analysis that the men used a range of personal coping strategies to manage their depression. These were used independently of professional treatment protocols and included both cognitive and behavioural strategies.

Three types of coping strategies were identified in the men's narratives. 'Externalising attributions' were identified as attempts to justify the changes in behaviour they were experiencing as a logical consequence of external stressors. Work related stress and having to deal with the problems of those around them were two common justifications the men used to explain their distress. This coping mechanism is similar to the concept of 'normalising symptoms' coined by Ginsberg, and Brown (1982). A recent definition of this concept is provided by Kessler, Lloyd, Lewis, & Pereira (1999) who define normalising symptoms as the tendency of people to explain away marked changes in behaviour in order to minimise its perceived

severity. Secondly, the men made attempts to hide their depression from others by not telling them that they were experiencing distress and by avoiding situations where their depression would be made known to others. Thirdly, the men managed their depression by expressing their distress in ways that were considered socially acceptable. Examples of this included drinking excessively, becoming angry and behaving violently. As well as allowing the men to express their distress without questioning their masculinity, alcohol and substance abuse relieved the men of their distress for a period of time.

According to Moos and Schaefer's (1993) dimensional criteria the three coping strategies used by the men are all examples of avoidance strategies, in that they allowed the men to detach themselves from their distress by venting emotions, minimising the seriousness of the situation, and engaging in tension reducing behaviours. However, a recent review of the technical literature has shown mixed support for the adoption of avoidant coping strategies by men. A review by Blalock and Joiner (2000) showed that in general males tend to utilise behavioural and cognitive approach strategies more than the respective avoidance strategies. Two exceptions to this are the high prevalence of alcohol and drug use as a behavioural avoidance strategy and the under use of the behavioural approach strategy of social support by men compared to women. These exceptions may offer an explanation for the disparity between the technical literature and the men's personal experiences of depression, as there was a high rate of substance abuse and an avoidance of social support by the men in the study.

The coping strategies employed by the men were aimed at maintaining a sense of control over the changes they were experiencing and to minimise the offering and availability of external assistance which could be potentially supportive. The adoption of these strategies by the men emerged as a response to three ideals the men held regarding the way they perceived the way men should be. These three beliefs are as follows: men should be strong and able to control themselves at all times, and that showing signs of vulnerability or struggle is a sign of weakness; men need to be independent and possess the ability to overcome personal problems without the help of others; and being competitive and successful are central qualities of being a man. These ideals have been identified by the one published grounded theory study of male depression (Heifner, 1997). Heifner (1997) describes the 14 men in her study as possessing rigid, traditional gender identities that included being strong, successful, in

control, capable of handling problems without help, and that showing struggle and vulnerability was a sign of weakness. However, in this study the traditional male identity was viewed as an etiological factor of male depression and was not related to the participants attempts to manage their depression. The predominance of the traditional male socialisation in the adoption of avoidance strategies by the men is consistent with gender role theories of depression, however. Research by Lynch, and Kilmartin (1999) has indicated that through socialisation men learn to act tough, self reliant, and aim at achieving status above all else. This leads to a restricted emotional life and the tendency to express distress through self-destructive behaviours (Levant, et al., 1992). Furthermore, the adoption of maladaptive coping behaviours by the men in response to these ideals is congruent with the concept of dysfunctional strain used in by Pleck's (1995) gender role strain theory. Dysfunctional strain occurs when an individual fulfils the requirements of the masculine stereotype which has negative side effects for both themselves and the people around them. Negative consequences of dysfunction strain identified in the technical literature that were experienced by the men as a result of their coping behaviour included criminal convictions, alcohol dependency, domestic violence and physical injury (Pleck, 1995).

In the men's narratives a strong relationship was evident between the use of personal coping strategies and the progression of depression over time. The use of avoidant coping strategies by the men emerged as a contributing factor in the course and severity of their depression, resulting in long prodromal periods and the progressive build-up in severity of depression over time. This finding is consistent with the results of a number of longitudinal studies which have associated normalising, avoidance, and distractive coping strategies with increases in depressed mood (Blalock, & Joiner, 2001). However, a feature of the men's personal experiences of coping with depression which has received little attention by the previous literature is the evolving nature of men's coping strategies over time. As the men described their personal experiences of depression it became evident that there was a movement away from the three avoidant coping strategies towards more effective long term coping strategies as they learned more about their depression. Long term coping strategies adopted by the men included 'taking each day at a time'; 'accumulating a pool of resources'; 'talking to others about their depression'; and 'finding purpose'. These findings suggest that the coping strategies used by men with depression are dynamic in that they are both informed by and in turn evolve with the

men's changing understanding of depression. This offers a new perspective on the way men cope with depression and suggests that the type of coping strategies used by the men is a function of previous experience with depression.

In summary, the personal coping strategies used by the men reflect an avoidance coping style identified by the technical literature. It emerged from the men's narratives that the coping strategies they adopted were in response to ideals they held regarding the way men should be. This too is congruent with previous literature which has shown that the traditional male socialisation patterns tend to promote self destructive coping behaviours and along with the expression of atypical symptomatology led to the build up of the men's depression over time. The present findings of this study also add to the literature by suggesting that the coping strategies used by men evolve over time as a result of their previous experiences. This is a novel concept and may explain the variation in the current body of literature examining the use of avoidance and approach coping strategies by men.

Attitudes Towards Treatment.

The majority of the research examining the treatment of male depression has shown that in general males tend to overuse pharmacological treatments for depression and are underrepresented in psychotherapeutic treatment programs. This bias in treatment use was evident in the men's narratives. An analysis of the men's treatment details provided by their mental health care provider showed that the most common form of treatment currently used by the men was pharmacotherapy while only a small proportion were receiving psychotherapy.

A large body of literature has attempted to explain why this is the case by examining the incongruency between help seeking behaviour and the masculine ideology (Eisler, & Blalock, 1991; Good, Gilbert, & Scher, 1990). These studies have shown that the perceived features of being a good client, such as willingness to self disclose personal information, tolerance of interpersonal vulnerability, and emotional awareness is antithetical to the traditional masculine ideology. A study by Good and Wood (1995) showed that high conflict between these attributes and the masculine ideology resulted in negative attitudes towards seeking treatment for depression in men. As a result of this body of research there have been a number of suggestions made regarding the way male depression is treated. Ipsaro (1986) outlines two strategies commonly suggested. Firstly, efforts need to be made to change men's

views of counselling in a way which emphasises personal courage and strength in facing and sharing concerns and to reframe the therapy as a personal challenge to achieve a higher level of competence. More speculative and controversial is the suggestion that counsellors should change the structure of therapy in a way that promotes instrumental change and a rebuilding of control. A study by Good, Gilbert, and Scher (1990) supports this initiative by showing that men respond more to educational and instructive workshops and seminars than traditional one on one therapy. Unfortunately, very few other studies have examined the possible benefits of these initiatives (Good, & Wood, 1995). In relation to the men's personal experiences, which showed that losing control was the focus of the their distress and that rebuilding control was a prominent feature of the their descriptions of successful treatment, it can be assumed that initiatives such as these would have benefited them.

Although the men did express negative attitudes towards receiving treatment associated with the public admission of weakness, they accepted they could not handle the problem and that they would have to give control of the situation to someone else. They also expressed a desire to seek treatment. An examination of the men's experiences showed that the men believed that receiving treatment would relieve their depression. The men's indecisiveness with respect to receiving assistance for their depression was labelled 'wanting and not wanting to receive treatment'. The mixed emotions expressed by the men have been previously identified by Good, and Wood (1995) who conducted a qualitative study examining the impact of male socialisation on psychotherapeutic encounters. This research found that men come to treatment with a mix of reluctance, resistance, and hope. In addition to supporting this research the present findings indicated that the negative expectations of treatment initially held by the men became less salient with subsequent experiences of treatment. This change was accompanied by the belief that the man, rather than the clinician, was the driving force behind the changes that were made and the men's ability to differentiate what treatments were effective in relieving their depression and those that were not.

In general, these findings suggest that the decision for males to come to treatment is more than a matter of overcoming gender stereotypes, which has been suggested by previous research. Rather it involves a complex cost/benefit analysis by men.

This raises new issues for programs aimed to encourage men to receive treatment for depression. In particular, attempts could be made to raise the saliency of the positive effects of treatment in order to outweigh negative perceptions held by men.

Throughout the men's narratives there were frequent references to the therapeutic relationship. The therapeutic relationship featured prominently in the men's experiences as both a positive and negative aspect of treatment. While some of the men were able to build a strong relationship with their mental health care provider others did not. This emerged as an important factor in the effectiveness of the men's treatment and their level of compliance with their prescribed treatment protocol. These findings are consistent with a large body of research showing that the relationship between the client and the health care provider is an important factor governing the success of psychotherapeutic treatment (Gehart, & Lyle, 2001). A large body of literature examining the role of therapeutic relationships in treating men with depression has focussed on examining the differences between the way men interact with male and female health care providers. A study by Jones, Krupnick, and Kerig (1987) showed that the gender of the health care provider was the third most significant factor behind pre-treatment level of disturbance and client age in the treatment of depression and is a significant factor affecting process and outcome variables in therapy. Although this finding has been supported by more recent research (Sells, Smith, Coe, Yoshioka, & Robins, 1994) the gender of the therapist did not emerge as a salient feature of the men's personal experience of depression. For the men the most important feature governing the success of their treatment was the accommodation of their mental health professional's understanding of depression with their own idiosyncratic theory. While successfully accommodating the professional's paradigm of depression with their own paradigm was associated with a positive treatment experience, incongruence between the men's and their caregivers' understanding of depression resulted in additional stress for the men and non-compliance with their prescribed treatment protocol. Despite this the role of client variables in the treatment of male depression has received little research attention in the technical literature (Teyber, & McCure, 2000). This finding highlights the importance of client variables in the treatment of masculine depression, in particular the clients understanding of depression and previous treatment experience.

In summary, the men's personal experiences of treatment are congruent with the technical literature in that the most common form of treatment currently used by

the men was pharmacotherapy while only a small proportion were receiving psychotherapy. Although a large body of literature has suggested that this is due to the incongruence between the perceived attributes of help seeking behaviour and the masculine ideology, the current findings indicate that the decision for men to receive treatment involves a complex cost/benefits analysis. In addition, it became evident that the negative perceptions men associated with receiving treatment for their depression became less salient to them once they had received treatment. These findings have important implications for programs aimed at encouraging men to receive treatment for depression.

The therapeutic relationship was a central feature of the men's experience of treatment. Unlike previous literature in this field the men did not consider the gender of their health care provider an important issue. The most important feature of the therapeutic relationship which emerged from the participants' narratives was the congruency between their understanding of depression and that of their health care provider. In general very little research attention has been paid to the role of client variables in assessing the effectiveness of psychotherapeutic treatment protocols. In particular the current findings highlight the importance of the relationship between the client's personal understanding of their illness and the professional paradigm employed by the health care provider.

Developing a Personal Paradigm of Depression.

The basic social process emerging from the men's personal accounts of depression involved 'developing a personal paradigm of depression'. 'Developing a personal paradigm of depression' describes the process by which the men's understanding of their depression and self concept emerged with the accumulation of an experiential knowledge of their distress. This process involved the men formulating an understanding of the symptoms and causes of their depression and the accommodation of this information within the self.

The process of developing a personal paradigm of depression is consistent with the concept of explanatory models which has previously been used to understand lay attitudes towards mental illness. The current findings support this concept in that the particular set of ideas and beliefs adopted by the men to understand and manage their depression was a result of a wide variety of lived experiences and were influenced by a range of social and cultural factors. The lived experiences that were

acknowledged by the men as contributing to their understanding of depression were categorised under the four selective codes: experiencing the symptoms of depression; surviving/ using spontaneous coping strategies; the experience of becoming depressed; and the experience of treatment. In further support for the relevance of this concept to the men's experience of depression, the way the men identified, expressed, and explained the causes of their depression evolved as they were exposed to additional personal and social experiences. A review of the literature on explanatory models shows that little attention has been given to application of this concept to male depression. By examining the men's narratives in relation to this literature the present findings offer new insights for clinicians and researchers into the process by which men experience and come to understand depression.

Firstly, the way the men came to understand their depression could be described as a journey or temporal process. Early on in the analysis it became evident that all the participants had spontaneously offered their experiences of depression as temporal stories that began with the onset of their depression and were told up until the present. This is reflected in the men's focus on describing changes in their understanding of depression and themselves over time as well as the progression into depression which was described by the men as a 'downward spiral'. The dynamic nature of the men's experience is further evidenced by the changing nature of the social and cultural beliefs held by the men which influenced their understanding of depression. A cultural factor which had a significant impact on the way the men reacted to their depression was the social stigma associated with having a mental disorder. Central to this was the belief that there was an internal flaw within people who had a mental disorder and that these people were unable to handle every day life, and needed to be taken care of by others. The stigma of mental illness adopted by the men emerged as central to the men's difficulty in accepting that depression was going to be a part of their life their capacity to cope with depression long term. Although it was not possible for the men to unlearn this knowledge, in the light of new experiences they were able to reconstruct their beliefs. Through experiencing depression first hand a number of participants overcame the stigma of mental illness by critically reflecting back on their experiences and exposing the taken for granted assumptions embedding their beliefs. A common out come of this process was constructing depression as a medical problem rather than a personal weakness. In turn, the men came to accept depression as a part of their life and led the men to adopt

a range of 'preventative coping strategies' which were more effective in managing their depression. This process is consistent with the research on the way people learn from lived experiences which has indicated that over time the meaning abstracted from personal experiences can evolve (Boud, Cohen, & Walker, 1993). The experience itself may not change but the knowledge drawn from successive experiences can grow, transforming meaning and altering future behaviour.

A key feature of the men's evolving understanding of depression was the transition from implicit to explicit learning processes. Although almost all the men expressed a drive to know more about their depression, during the early stages of depression the degree of learning was normally not apparent to them as they had limited ability to reference their experiences. Explicit learning seemed to emerge in the later stages of depression as the men developed a more refined understanding of their distress. As they learned more about their depression, attempts were made to actively learn about specific features of their depression. This process was labelled ' understanding the nature of depression'. A common strategy that the men used to do this was accessing the professional literature on depression.

Further support for the temporal nature of the men's understanding of depression comes from the transformation and integration of their experiential knowledge of depression into propositional knowledge which they could reflect upon, altered and share with others. The present findings showed that as the men found commonalities in their aggregated experiences and developed an ability to identify the causes and antecedents of their depression, they developed 'personal theories of depression' which they were able to explain to the researcher and in a number of cases critically review in the light of new information. The men's progressive ability to actively engage in their experiences and to reflect back on them is consistent with previous research on experiential learning (Boud, & Walker, 1991).

The temporal nature of the men's understanding of depression has important implications for the way male depression is theorised and treated. Previous attempts to conceptualise male depression have tended to provide a 'snapshot' of male depression in which the etiological factors, symptoms, and coping behaviours are partialled out and viewed as static and in isolation from one another. The present findings argue that for men with depression these variables are closely related to one another, interact in a complex way, and evolve over time together. A central feature of this process for the men was the progressive development of an awareness of their

depression, its causes, and the way it is best managed. Viewing male depression as a temporal process is novel and may help explain the variation in the literature explaining the expression, causes, and coping strategies that are used to understand depression. It is important that mental health professionals are aware of this and refraining from oversimplifying the clients situation as a collection of antecedent factors, symptomalogy, and coping resources.

As well as being a temporal process the construction of the men's personal understanding of depression was a holistic process which was constructed from a range of affective, cognitive, and conative experiences. An analysis of the men's narratives shows that they reflected on thoughts, emotions, and overt behaviours in describing their experiences of depression to the researcher. However, the men tended to prioritise conative and cognitive experiences over affective experiences. The men commonly expressed thoughts such as 'losing control', 'losing interest', and 'feeling weak' and behaviours such as lowered functioning, work problems, and substance abuse as pertinent aspects of their depression but very few references were made to lowered mood, feelings of depression, or sadness. It has been suggested that this pattern of experiential learning is indicative of contemporary western society, where there is a cultural bias towards using conative and cognitive experiences and a limited ability to abstract meaning from affective sensations (Postle, 1993). This finding suggests that despite the current emphasis on lowered mood in diagnosing depression by current diagnostic tools, men with depression are more likely to perceive the range of behavioural problems they are experiencing as unrelated to their internal mood state. A central theme interconnecting these problems however will be a sense of losing control.

An analysis of the men's narratives also showed that the experience of depression is idiographic in that there was a high degree of variability within the men's personal paradigms of depression. This was evidenced by the different beliefs held by the men regarding the causes of their depression, the variety of behaviours they used to express and manage their depression, and the beliefs they held regarding the way it should be treated. This is consistent with the work of Boud and Walker (1990) who propose that the construction of meaning from experiences is created as a unique transaction between the learner and the milieu in which he or she reacts, and is therefore relative. Similar experiences may lead to different constructions when experienced by different people. These researchers have developed the concept of 'the

learners personal foundation of experience' to explain the variation in interpretations that occurs across individuals who have been exposed to similar experiences. The learner's foundation of experience proposes that learning always relates to what has previously been learned and that the cumulative effect of the learner's personal and cultural history governs the way experiences are interpreted. Along with the temporal and holistic nature of the men's depression, this finding suggests that despite their dominance in the literature, the use of strict categorical definitions to identify male depression is inappropriate. The data collected from the men indicates that a more useful approach would possibly be to assess depression as a syndrome by examining the relationships between the everyday problems they are experiencing, along with the men's perception of these changes, and to assess whether, as a whole, they reflect an episode of depression.

In summary, the basic social process emerging from the accounts of the men's experience of depression involved 'developing a personal paradigm of depression'. This process is consistent with the concept of explanatory models which have been used to explain the way in which people construct and manage episodes of illness. However, the development and evolution of explanatory models has received little attention in the literature on male depression. By examining the present findings in relation to this research, the psychological processes underlying the nature of the men's explanatory model of depression were identified. Early on in the analysis it became evident that all the men had spontaneously offered their experiences of depression as temporal stories. Two key processes associated with the men gaining more experience of their depression included the transition from implicit to explicit learning processes, and the transformation of experiential knowledge into propositional knowledge. From this it can be concluded that the way men come to understand depression is a dynamic process rather than being static as promoted by the previous literature.

The way the men understood their depression was a holistic process which was influenced by a range of affective, cognitive, and conative experiences. However, very few references were made by the men to lowered mood, feelings of depression, or sadness as the men described their depression. There was also a high degree of variability within the men's personal paradigms of depression. This is consistent with the concept of 'the learner's personal foundation of experience' which has been used to explain how similar experiences may lead to different constructions when

experienced by different people. As a whole, these features of depression suggest that the use of strict categorical definitions to identify male depression are inappropriate. A more useful approach to assessing male depression would focus on examining the relationships between the problems the men are experiencing and their perception of these problems.

Limitations.

In keeping with the foundations of grounded theory, this theory is not designed to offer a final or complete interpretation of masculine depression but is designed to bring a different perspective to this area of study and raise awareness concerning a number of taken-for-granted assumptions. However, the present study had the following limitations which may limit the transferability of the findings to other instances of male depression.

The sample of participants consisted of a community based sample of self-referred men. As a community based sample the majority of the men were experiencing mild to moderate depression with only a few reaching the parameter of severe depression on the BDI-II and HDI-SF. Furthermore, there was a lack of cultural diversity across the sample. Nearly all of the participants identified as New Zealand European or of European descent. Although over one hundred men were screened for the study only one identified himself as Maori and he did not fulfil criteria for the clinical supplement trial. The common difficulty in recruiting Maori participants for psychological research does limit the applicability of these findings to depression in Maori men.

The data used to conceptualise the men's experience of depression was collected over a 12-week clinical trial. Two ways in which the clinical trial influenced the mens' narratives have been identified. Firstly, the 12-week research period constitutes a small piece of the men's experience of depression. The men commonly used retrospective accounts to describe their own understanding and reactions to depression, as well as the way it has been treated. The men's descriptions were therefore reliant on their memory as well as their current experiences. Secondly, even though no significant differences were identified between the control and the experimental groups there was a general decrease in all the participants' depression over the course of the study. It is possible that this change was due to the relative importance the men placed on talking to people about their distress as an effective

coping strategy, in conjunction with the contact they had with the researcher over the course of the study. Although it would be difficult, as well as unethical, to recruit a sample of depressed men who were not receiving treatment, the significant decrease in the participants' depression over the course of the clinical trial is an important feature of the current study as all participants had been stabilised on their medication for at least two months and none of the men were receiving psychotherapy.

Implications for Researchers and Clinicians.

It is believed that the findings presented here offer an insight into the way men come to understand depression and have significant implications for researchers and clinicians.

Implications for further research.

At this stage the theory presented here is local to the male participants even though consistencies were found with the previous research on masculine depression. The present findings have highlighted a number of avenues of inquiry that if pursued would add to the current literature on male depression.

In light of the current findings which have shown an evolution in the way the men understand and cope with depression, it is of particular importance to explore the course of male depression. Of particular interest would be the onset of male depression, the psychological processes that underlie decisions to seek out and receive treatment, as well as the remission process in depression, which was not examined in this study. This could be undertaken using a longitudinal study which uses both qualitative and quantitative measures to examine changes in depression in men over time. The use of weekly diaries in conjunction with periodic interviews in such a study would reduce the reliance on memory.

It would also be beneficial to re-examine the range of experiences the men used to formulate their understanding of depression (represented by the four selective codes in the present study) to study other populations of depressed men, including men from different cultural backgrounds. In particular the role of control feelings in male depression would warrant further examination. By further examining the nature of and the relationships between these experiences the utility of the present findings for other samples of depressed men could enable inroads to be made into identifying the specific types of experiences the men use to formulate their understanding of

depression. This investigation could be incorporated into the aforementioned longitudinal study or initiated as a separate research project.

Finally, it would be useful to undertake a qualitative study of depression in a sample of Maori men. The current findings do not investigate this and considering the prominent influence of social and cultural variables on the men's experience of depression it is likely that a study of Maori men would uncover other aspects of male depression that are important in understanding depression in Maori. Particular areas of interest would be examining the ideals they hold regarding the way Maori men should be and the role of traditional Maori social support networks such as whanau and hapu on their understanding of depression.

Implications for clinicians.

Recommendations for clinicians are that the presentation of depression in men cannot be viewed independently of their previous experiences of distress. Clinicians need to be aware that men who experience depression spontaneously formulate an idiosyncratic understanding of their depression which informs its expression, attempts to cope with it and the decision to seek professional help. In some cases the presenting manifestations of depression may be a residue of personal coping strategies. It is important the clinicians are aware that formulating a snap shot of their clients situation may not be received well by the client and have a detrimental effect on the therapeutic relationship.

Before implementing a treatment regime it is important to assess the men's pre-existing understanding of depression, the coping strategies they have used in the past, and the way it should be treated. If this is not done it is possible that the treatment protocol is not congruent with the men's understanding of depression and may not be accepted by the men, thus leading to a low rate of compliance. Likewise, the client may have already adopted the procedure as an effective coping strategies. In this case the clinicians is better off developing these strategies further and building on the participants' pre-existing strengths.

Professional literature emerged as a key resource for the men's understanding of depression and the way they coped with it. Clinicians would benefit by offering their clients a library of professional resources which they could access freely and in time discuss with their clinician. This would aid in implementing treatment protocols that were congruent with the men's understanding of depression and help the men

develop their knowledge of depression. Furthermore it is suggested that the treatment protocol employed focus on decreases in functioning the men are experiencing. As well as being a central symptom of depression there was a close association with a sense of losing control which emerged as the focus of the men's distress. Behavioural techniques that increase the men's functioning would have a high face validity for the men and over time could allow them to regain a sense of control over their situation. This approach would be consistent with a number of cognitive and cognitive-behavioural approaches to the treatment but involves providing much more autonomy for the client in the initial as he formulates his own theory of depression in collaboration with the therapist.

Summary of Findings.

The primary objective of this study was to complement the existing literature by conceptualising male depression based on the experiences of affected males. The current findings offer an alternative perspective of male depression, one that looks beyond traditional models and offers new insights into understanding depression in men. The following is a summary of the research findings.

The findings of the present study indicate that men express both atypical and typical symptoms of depression. Diminished interest or lack of pleasure in daily activities and a loss of energy or fatigue emerged as a central feature of the men's depression alongside atypical signs of depression such as changes in functioning, feelings of anger, problems in work situations, changes in interpersonal behaviour as well as making few references to lowered mood. This finding supports research that has attempted to identify the unique clinical features of masculine depression which can be used in conjunction with traditional diagnostic criteria to identify depression in men. Clinical features such as those identified in the participants' narratives include: strain between gender role expectations and performance, anger and increased interpersonal conflict, decreases in social contact, substance abuse, and difficulties in concentration and motivation. The men's narratives also support research showing that the atypical expression of depression results in a build up of depression over time and that the men's inability to identify the interconnectedness of their problems may contribute to this build up.

The personal coping strategies used by the men reflect an avoidant coping style identified by the technical literature. It emerged from the men's narratives that

the coping strategies they adopted were in response to ideals they held regarding the way men should be. This is congruent with previous literature which has shown that the traditional male socialisation patterns tend to promote self destructive coping behaviours and along with the expression of atypical symptomatology lead to the build up of the men's depression over time. The findings of the present study add to the previous literature by suggesting that the coping strategies used by men evolve over time as a result of their previous experiences. This concept may explain the variation in the current body of literature examining the use of approach-avoidance coping strategies by men.

The men's personal experiences of treatment showed a similar theme to the technical literature in that the most common form of treatment currently used by the men was pharmacotherapy while only a small proportion were receiving psychotherapy. Although previous literature has suggested that this is due to the incongruence between the perceived attributes of help seeking behaviour and masculine ideology, the current findings indicate that the decision by men to receive treatment involves a complex cost/benefit analysis. In addition, it became evident that the negative perceptions men associated with receiving treatment for their depression became less salient to them once they had received treatment. These findings have important implications for programs aimed at encouraging men to receive treatment for depression.

The therapeutic relationship was a central feature of the men's experience of treatment. The most important feature of the therapeutic relationship which emerged from the participants' narratives was the congruency between their understanding of depression and that of their health care provider. In general very little research attention has been paid to the role of client variables in assessing the effectiveness of psychotherapeutic treatment protocols. In particular, the current findings highlight the importance of the relationship between the client's personal understanding of their illness and the professional paradigm employed by the health care provider.

The basic social process emerging from the accounts of the men's experience of depression involved 'developing a personal paradigm of depression'. This process is consistent with the concept of explanatory models which have been used to explain the way in which people construct and manage episodes of illness. The development and evolution of explanatory models has received little attention by the literature on male depression. By examining the present findings in relation to this literature, the

psychological processes underlying the nature of the men's explanatory model of depression were identified. Early on in the analysis it became evident that all the men had spontaneously offered their experiences of depression as temporal stories. Two key processes associated with the men gaining more experience of their depression was the transition from implicit to explicit learning processes and the transformation of experiential knowledge into propositional knowledge. In conclusion the way the men came to understand depression is dynamic process rather than being a static as promoted by the previous literature.

The way the men developed their understanding of depression was a holistic. However few references were made by the men to lowered mood, feelings of depression, or sadness as the men described their depression. This supports previous research which has indicated a neglect of affective sensations when abstracting meaning from lived experiences. There was also a high degree of variability within the men's personal paradigms of depression. This has previously been explained using the concept of 'the learners personal foundation of experience'. This suggests that similar experiences may lead to different constructions when experienced by different people. This suggests that the use of strict categorical definitions to identify male depression are inappropriate. A more useful approach to assessing male depression would focus on examining the relationships between the problems the men are experiencing and their perception of these problems.

In keeping with the foundations of grounded theory these findings are not intended to offer a final or complete interpretation of masculine depression But are designed to bring a different perspective to this area of study. The present study had limitations which may impact on the transferability of the findings to other instances of male depression. Limitations in the present study were associated with the positively skewed low level of depression in the men, and lack of cultural diversity across the sample. Two ways in which the 12-week clinical trial influenced the mens' narratives were identified. Firstly, the 12-week research period constitutes a small piece of the men's experience of depression and therefore relied on the men's ability to re-count their experience of depression. Secondly, The men's narratives may have been influenced by the general decrease in all the participants' depression over the course of the study.

Summary of Recommendations.

It is believed that the findings presented here offer an insight into the way men come to understand depression and have significant implications for researchers and clinicians. Although the theory presented here is local to the male participants the present findings have highlighted a number of avenues of inquiry that if pursued would add to the current literature on male depression. It is of particular importance to explore the course of male depression. Areas of interest would include the onset of male depression, the psychological processes that underlie the decision to receive treatment for depression and the remission of depression. It would also be beneficial to examine in-depth the range of experiences the men used to formulate their understanding of depression represented by the four selective codes in the present study and to extend this to other populations of depressed men. It would also be useful to undertake a qualitative study of depression in a sample of Maori men.

Recommendations for clinicians are that the presentation of depression in men cannot be viewed independently of their previous experiences of distress. Clinicians need to be aware that men who experience depression spontaneously formulate an idiosyncratic understanding of their depression which informs its expression. Before implementing a treatment regime it is important to examine the men's pre-existing understanding of depression, the coping strategies they have used in the past and the way it should be treated. Clinicians would also benefit by offering their clients a library of professional resources which they could access freely and in time discuss with their clinician. Furthermore, it is suggested that the treatment protocol employed focusses on decreases in functioning the men are experiencing. Behavioural techniques targeting and increasing the men's functioning would have a high face validity for the men, especially if tailored to their specific areas of deficit and overtime will allow the men to rebuild a sense of control over their situation.

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Appendix A.

INTERVIEW FORMAT

AIM
"The aim of this interview is to explore your experiences of depression and the way it has effected your life"

INSTRUCTIONS
"It is really important that we cover the topics that are important to you. There are no rules or guidelines on what has to be covered. I ask you ..."talk about a topic as much as possible, and say whatever comes to their mind".

PARTICIPANTS RIGHTS
Before we start the interview it is important you understand your rights as a participant. You have the right to:

Stop the interview at any time
Ask Questions at any time
Not answer a question if they don't want to
Receive a transcript of the interview for review
Have your participation in the research kept confidential and the information they provide stored securely

THEME 1: UNDERSTANDING DEPRESSION

MANY DIFFERENT PEOPLE HAVE TRIED TO DEFINE WHAT DEPRESSION IS. FROM YOUR EXPERIENCES HOW WOULD YOU DESCRIBE YOUR DEPRESSION?

WHAT THINGS MAKE UP YOUR DEPRESSION

WHAT IS THE MOST DISTRESSING ASPECT OF YOUR DEPRESSION?

WHAT DO YOU THINK CAUSED YOUR DEPRESSION? HOW DO THESE THINGS CAUSE DEPRESSION

THEME 2: SOCIAL EXPERIENCES OF DEPRESSION

WHAT AFFECT DID DEPRESSION HAVE ON YOUR LIFE?

HOW HAS DEPRESSION AFFECTED THE WAY YOU INTERACT WITH PEOPLE?

WHO DO YOU THINK HAS BEEN AFFECTED BY YOUR DEPRESSION THE MOST? HOW DID THESE PEOPLE DISCOVER YOU WERE AFFECTED BY DEPRESSION? WHAT WAS THEIR REACTION?

HOW DO YOU THINK THE GENERAL PUBLIC PERCEIVES PEOPLE WITH DEPRESSION?

CAN YOU DESCRIBE TO ME THE EVENTS THAT LED YOU TO BE DIAGNOSED WITH DEPRESSION? WHAT HAPPENED AFTER YOU RECEIVED A DIAGNOSIS OF DEPRESSION? HOW DID YOU FEEL?

THEME 3: COPING MECHANISMS

WHEN YOU ARE FEELING DOWN HOW DO YOU COPE? …DOES THIS NORMALLY MAKE YOU FEEL BETTER?

IS THERE ANYTHING THAT MAKES YOU FEEL WORSE?

WHAT MADE YOU SEEK TREATMENT FOR DEPRESSION?

HOW DID PEOPLE AROUND YOU REACT WHEN THEY FOUND YOU WERE BEING TREATED FOR DEPRESSION?

THEME 4: TREATMENT

WHAT DO YOU THINK OF THE TREATMENT YOU ARE CURRENTLY RECEIVING? DO YOU THINK IT IS WORKING?

WHAT DO YOU THINK ARE THE MOST EFFECTIVE WAYS OF TREATING DEPRESSION FOR YOU? WHY?

WHAT TREATMENTS DO YOU THINK HAVE BEEN THE LEAST SUCCESSFOR YOU WHY?

WHAT WERE YOUR REASONS FOR BEING PART OF THE PRESENT STUDY

THEME 5: GENERAL

DO YOU THINK THERE ARE DIFFERENCES IN THE WAY MALES AND FEMALES EXPERIENCE DEPRESSION

LOOKING BACK ON YOUR EXPERIENCES DO YOU THINK YOUR OWN PERCEPTION OF DEPRESSION HAS CHANGED? HOW?

Appendix B.

Massey University

CROP & FOOD RESEARCH
Mana Kai Rangahau

Nutritional Supplement Trial
Information Sheet for potential Participants

Who are the Researchers

My name is Peter Watts. I am currently undertaking a research project towards a Master of Arts degree in psychology. My supervisors are Cheryl Woolley, who is a senior lecturer and psychologist at the school of psychology at Massey University, and Dr Karen Silvers, who is a nutrition scientist at Crop & Food Research in Palmerston North.

What is the Study about

Crop & Food Research has initiated a study investigating whether a particular nutritional supplement has any effect on mood disorder. I have become involved in that project, and have a special interest in males' personal experiences of depression. Although a lot of research has been done on depression there has been very little research examining the effects of a nutritional supplement on depression or males personal experiences of depression, so this is quite a new and promising area of study. I am currently seeking candidates to become involved in this joint research project.

What will you have to do

You are not in any way obliged to participate, and whatever you decide to do will not affect the treatment you receive at the clinic you are attending.

The research will involve a group of volunteers taking a capsule containing either the nutritional supplement or a placebo (a capsule that looks the same but does not contain the substance being tested) for a period of 12 weeks. Both the nutritional supplement and the placebo are natural substances, which have been shown to have a range of health benefits. They have very few side effects, but may not be suitable for people with any problem that prevents their blood from clotting (such as haemophilia or leukaemia)

Each participant will be asked to provide three blood samples (which I will organise) during the study: one at the start, one after two weeks, and one at the end. I will ask you for your mental health diagnosis and what antidepressant medicines you are on. I will ask for your consent to confirm these details with your health care professional. Also there will be a number of questionnaires to fill out. These will take about an hour each time, and I hope to ask each participant to fill most of them out on four different occasions over the 12 weeks that they are involved in the study. Finally, I would like to interview a small number of men in greater depth about the their experiences of depression. These interviews may be audio taped so that I can transcribe them later, but the tape will not be accessible by anyone other than my supervisors and myself.

Here is a summary of what the research will involve:

- Three blood samples. These will be taken at 0, 2, and 12 weeks.

- Four test sessions. These will all be about one hour long and will occur at 0, 2, 4, and 12 weeks.

- One audio taped interview session at 0 weeks and a follow up session at 12 weeks.
  (If required)

Your Privacy

Some of the issues involved in the research mean that participants are being asked to provide personal information. For this reason, the information provided by you in the study will be kept strictly confidential. I will conduct all questionnaires and interviews with the participants. No names will appear on the blood samples, the questionnaire or interview tapes or notes; participants will be identified by a special code number. Only my supervisors and I will have access to the information received. Reports and articles may be written at the end of the research project, but participants will not be identified. When the study is completed all questionnaires, and interviews will be destroyed. On your request your blood samples can be returned to you at the end of the study otherwise these will be destroyed as well.

Even if you agree to participate you can withdraw at any time without providing a reason, and you may refuse to answer any questions that you are not comfortable with. If individual participants are interested, the research team can post you a summary of the study results when all the work has been completed. Also, I will be happy to answer questions about the study at any time.

If you are interested in participating, or would like more information, please contact me by telephone. Together we will decide whether participating in the study is right for you. If you agree to participate I will arrange to meet with you, and will ask you to read and sign a consent form. This will inform of your rights as a participant in the study. We will then proceed with the first interview.

Please feel free to contact me through the school of psychology at Massey University. The phone number is ( ) extension ( ). If you leave your name and telephone number I will get back to you as soon as possible. Likewise you can also contact my research supervisor Cheryl Woolley through the school of psychology at Massey University. Her contact telephone number is ( ) extension ( ).

Thank you very much for taking the time to consider joining the study.

Yours sincerely

Peter Watts

Appendix C.

Massey University

CROP & FOOD RESEARCH
Mana Kai Rangahau

Nutritional Supplement Trial

Consent form

Request for an Interpreter

English	I wish to have an interpreter.	Yes	No
Maori	E hiahia ana ahau ki tetahi kaiwhakamaori/kaiwhaka pakeha korero.	Ae	Kao
Samoan	Oute mana'o ia iai se fa'amatala upu.	Ioe	Leai
Tongan	Oku ou fiema'u ha fakatonulea.	Io	Ikai
Cook Island	Ka inangaro au i tetai tangata uri reo.	Ae	Kare
Niuean	Fia manako au ke fakaaoga e taha tagata fakahokohoko kupu.	E	Nakai
	Other languages to be added following consultation with relevant communities.		

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

I understand I have the right to withdraw from the study at any time and to decline to answer any particular questions.

I understand that as part of the study, I will be asked to take either the nutritional supplement, which is being studied, or a placebo containing another natural substance, for a 12-week period. I will not be told which type I will be taking. I know who to contact if I have any side effects. I know who to contact If I have any questions about the supplement or the study.

I agree to provide information to the researcher on the understanding that my name will not be used without my permission. The information will be used only for this research and publications and seminars arising from this research project, and will not identify me.

I agree/ do not agree to give three blood samples, which will be analysed as part of this research project

I agree/ do not agree to taking part in an interview, which may be audio taped. I also understand that I have the right to ask for the audiotape to be turned off at any time during the interview.

I agree/ do not agree to the researcher asking my clinician to confirm details of my diagnosis and depression medication.

I agree to participate in this study under the conditions set out in the information sheet.

Signed: .....
Full Name: .....

Date:
Signature of Witness .....
Name of Witness .....

Appendix D.

Personal History Questionnaire

This form asks you to provide some information about your background. If you do not want to answer any question, just put an "X" in the space. If you need more space for your answer, use the other side of the page, and indicate the number of the question being answered.

General

1. Are you:

☐ Female ☐ Male

2. How old are you?

☐ 18-25 ☐ 26-35 ☐ 36-45 ☐ 46-55

3. Who is your key worker/clinician?

4. Please provide the name and contact details (if known) of your usual GP

Mental Health History

5. About when did your current episode of depression begin?

6. What do you think was the main cause of your current depression?

☐ genetics ☐ body chemistry

☐ childhood issues ☐ interpersonal/relationship problems

☐ stressful life events ☐ alcohol or drug problems

☐ other (please state)

7. In general, how much does your depression bother you?

Not at All 1 2 3 4 5 6 7 8 9 Couldn't be Worse

8. Have you ever attempted suicide?

☐ yes ☐ no

If **yes**, when?

9. Have you ever been seen by a mental health professional before now?

☐ yes ☐ no

If **yes**, have you ever been diagnosed with:

☐ an anxiety disorder (e.g. social phobia, obsessive compulsive disorder, panic disorder, agoraphobia, posttraumatic stress disorder)

☐ any other mood disorder besides depression (e.g. bipolar disorder, dysthymia)

☐ a psychotic disorder (e.g. schizophrenia)

☐ a drug or alcohol related disorder

☐ a personality disorder (e.g. borderline, antisocial personality disorder)

☐ an eating disorder (e.g. anorexia nervosa, bulimia, binge eating disorder)

10. What do you hope to achieve by seeing a mental health professional?

11. What do you hope to achieve by participating in this research study?

Family

12. What is your marital status?

☐ never married ☐ currently married or living with partner

☐ separated/ divorced ☐ widowed

13. Do you have children?

☐ yes ☐ no

If **yes**, please indicate the gender and age(s) of your child(ren)

14. How many of your children live with you now?

15. Besides your spouse or partner & children, do you live with any other people?

☐ yes ☐ no

If **yes**, please indicate how many people, and their relationship to you.

Other Personal Background

16. Which ethnic group do you most identify with?

☐ NZ Maori ☐ NZ Pakeha/European

☐ Other European ☐ Polynesian/Pacific Islander

☐ Asian ☐ Other (please state)

17. What is the highest level of education you completed?

☐ primary school ☐ up to form 5

☐ form 6 or 7 ☐ tertiary degree or diploma

☐ postgraduate degree or diploma

18. What is your usual occupation?

19. Are you currently employed?

☐ yes ☐ no

20. What is your annual income bracket?
If you are living with your spouse or partner, please include their income.

☐ less than $10,000 ☐ $10,000 – $20,000

☐ $20,000 – $30, 000 ☐ $30,000 – $40, 0000

☐ $40,000 - $50, 000 ☐ $50,000-$60,000

☐ more than $60,000

Appendix E.

Food Frequency Questionnaire

This questionnaire is for research purposes only and is strictly confidential

1. **How would you describe your eating pattern?** (*Please mark **one** only)*

- ☐ Eat all foods, including animal products
- ☐ Eat eggs, dairy products, fish and chicken but avoid all other meats
- ☐ Eat eggs, dairy products and fish but avoid all meats
- ☐ Eat eggs and dairy products but avoid all meats and fish
- ☐ Eat eggs but avoid dairy products, all meats and fish
- ☐ Eat dairy products but avoid eggs, all meats and fish
- ☐ Eat no animal products
- ☐ Other *(please specify)*_____

2. **Do you eat meat or chicken fried or roasted in fat or oil?**

- ☐ No → If no, go to question **4**
- ☐ Yes → What type(s) of fat or oil do you use **most often?**

(Please mark only those you usually use)

- ☐ Butter
- ☐ Margarine
- ☐ Butter-margarine blend
- ☐ Lard or dripping
- ☐ Olive oil
- ☐ Canola oil
- ☐ Other oils (e.g. sunflower, corn oil, safflower oil etc)
- ☐ Don't know
- ☐ Other *(please specify)*_____

3. **How often do you eat meat or chicken fried or roasted in fat or oil?**

- ☐ Less than once a month
- ☐ 1-3 times per month
- ☐ Once a week
- ☐ 2-4 times per week
- ☐ 5-6 times per week
- ☐ Once a day or more
- ☐ Other *(please specify)*_____

4. **Do you eat vegetables fried or roasted in fat or oil?**

- ☐ No → If no, go to question **6**
- ☐ Yes → What type(s) of fat or oil do you use **most often?**

(Please mark only those you usually use)

- ☐ Butter
- ☐ Margarine
- ☐ Butter-margarine blend
- ☐ Lard or dripping
- ☐ Olive oil
- ☐ Canola oil
- ☐ Other oils (e.g. sunflower, corn oil, safflower oil etc)
- ☐ Don't know
- ☐ Other *(please specify)*_____

5. How often do you eat vegetables fried or roasted in fat or oil?

- ☐ Less than once a month
- ☐ 1-3 times per month
- ☐ Once a week
- ☐ 2-4 times per week
- ☐ 5-6 times per week
- ☐ Once a day or more
- ☐ Other *(please specify)*_____

6. Do you use butter or margarine on bread (including toast and sandwiches) or crackers?

- ☐ No → If no, go to question **7**
- ☐ Yes → What type(s) of fat or oil do you use **most often?**

(Please mark only those you usually use)

- ☐ Butter
- ☐ Butter-margarine blend
- ☐ Sunflower margarine e.g. 'Meadowlea', 'Flora', 'Flora light'
- ☐ Canola margarine e.g. 'Praise', 'Gold n Canola', 'Canola Harvest'
- ☐ Olive oil spread e.g. 'Olivio', 'Olivani'
- ☐ Cholesterol-lowering spread e.g. 'Logicol', 'Proactiv'
- ☐ Other *(please specify)*_____

7. Do you eat fish, shellfish or seafood?

- ☐ No → If no, go to question **8**
- ☐ Yes → How often do you eat these foods?

Please fill one box for each food	Never	Less than once a month	1-3 times per month	Once a week	2-4 times per week	5-6 times per week	Once a day or more
Canned salmon	☐	☐	☐	☐	☐	☐	☐
Canned tuna or sardines	☐	☐	☐	☐	☐	☐	☐
Fresh tuna, steamed, baked, grilled or raw	☐	☐	☐	☐	☐	☐	☐
Fresh salmon or mackerel, steamed, baked, grilled or raw	☐	☐	☐	☐	☐	☐	☐
Eel, steamed, baked, grilled or raw	☐	☐	☐	☐	☐	☐	☐
White fish battered or crumbed	☐	☐	☐	☐	☐	☐	☐
White fish, steamed, baked, grilled or raw	☐	☐	☐	☐	☐	☐	☐
Shellfish	☐	☐	☐	☐	☐	☐	☐
Other seafood	☐	☐	☐	☐	☐	☐	☐

If other, please specify _____

8. Do you eat nuts?

☐ No → If no, go to question **9**
☐ Yes → How often do you eat these foods?

Please fill one box for each food	Never	Less than once a month	1-3 times per month	Once a week	2-4 times per week	5-6 times per week	Once a day or more
Walnuts, raw, salted or roasted	☐	☐	☐	☐	☐	☐	☐
Pecan nuts, raw, salted or roasted	☐	☐	☐	☐	☐	☐	☐
Pinenuts, raw or roasted	☐	☐	☐	☐	☐	☐	☐
Almonds, macadamias, pistachios or peanuts, raw, salted, roasted or butter	☐	☐	☐	☐	☐	☐	☐
Hazelnuts or cashew nuts, raw, salted, roasted or butter	☐	☐	☐	☐	☐	☐	☐
Chestnuts or brazil nuts, raw, salted, roasted or butter	☐	☐	☐	☐	☐	☐	☐

If other, please specify _____

9. Do you eat seeds (including in breads, museli, or other baked products)?

☐ No → If no, go to question **10**
☐ Yes → How often do you eat these foods?

Please fill one box for each food	Never	Less than once a month	1-3 times per month	Once a week	2-4 times per week	5-6 times per week	Once a day or more
Flax or linseed, whole or ground	☐	☐	☐	☐	☐	☐	☐
Mustard seed, whole or ground	☐	☐	☐	☐	☐	☐	☐
Pumpkin, poppy or sesame seeds, whole, ground or roasted	☐	☐	☐	☐	☐	☐	☐
Caraway, celery, cumin or dill seeds, whole or ground	☐	☐	☐	☐	☐	☐	☐
Sunflower seeds, whole, ground or roasted	☐	☐	☐	☐	☐	☐	☐

If other, please specify _____

10. How often do you usually have these drinks?

Please fill one box for each drink	Never or rarely	3 times a month or less	1-2 times per week	3-6 times per week	1-2 times per day	3-5 times per day	6 or more times per day
Beer – low alcohol	☐	☐	☐	☐	☐	☐	☐
Beer – ordinary	☐	☐	☐	☐	☐	☐	☐
Red wine	☐	☐	☐	☐	☐	☐	☐
White wine or champagne / sparking wine	☐	☐	☐	☐	☐	☐	☐
Wine cooler	☐	☐	☐	☐	☐	☐	☐
'Ready to drink' premixes (e.g. 'Lemon Ruski', 'KGB', 'MI5', 'Havana Gold')	☐	☐	☐	☐	☐	☐	☐
Sherry or port	☐	☐	☐	☐	☐	☐	☐
Spirits or liqueurs	☐	☐	☐	☐	☐	☐	☐

If other, please specify _____

11. How many 'standard drinks' do you have in an average week using the following table?

____ 'standard drinks' per week

Typical servings	'Standard drinks'
1 can or stubbie of ordinary beer (at 5%)	1.5
1 pub measure of spirits (whisky, gin, vodka)	1
1 glass of fortified wine (sherry, martini, port)	1
1 standard glass of table wine or champagne	1
1 bottle of fortified wine	11.5
1 pint of beer (a 'handle')	2
1 jug of beer	4
1 bottle of table wine or champagne	7.1
1 bottle of spirits	25

e.g. 4 cans of beer and 2 glasses of wine per week = 8 'standard drinks' per week

Dietary supplements questions

12. Did you take any vitamin and/or mineral capsules/tablets at any time during the last 12 months?

- ☐ Yes → Go to question **13**
- ☐ No
- ☐ Don't know

13. What dietary supplements did you take during the last 12 months?

Type	Brand name	Unit and dose taken	Frequency							
	e.g. 'Berocca'	e.g. 1 tablet twice daily	*Never*	*Less than once a month*	*1-3 times per month*	*Once per week*	*More than once per week*	*Daily*	*Episodic*	*Don't know*
Multi/vitamins or minerals			☐	☐	☐	☐	☐	☐	☐	☐
Multi/vitamins with iron			☐	☐	☐	☐	☐	☐	☐	☐
Multi/vitamins with other minerals			☐	☐	☐	☐	☐	☐	☐	☐
Thiamin (B1)			☐	☐	☐	☐	☐	☐	☐	☐
Riboflavin (B2)			☐	☐	☐	☐	☐	☐	☐	☐
Niacin (B3)			☐	☐	☐	☐	☐	☐	☐	☐
Vitamin B6			☐	☐	☐	☐	☐	☐	☐	☐
Vitamin B12			☐	☐	☐	☐	☐	☐	☐	☐
B Complex vitamins			☐	☐	☐	☐	☐	☐	☐	☐
Folic acid			☐	☐	☐	☐	☐	☐	☐	☐
Anti-oxidant vitamin			☐	☐	☐	☐	☐	☐	☐	☐
Iron			☐	☐	☐	☐	☐	☐	☐	☐
Garlic			☐	☐	☐	☐	☐	☐	☐	☐
Herbal supplement			☐	☐	☐	☐	☐	☐	☐	☐
Codliver oil			☐	☐	☐	☐	☐	☐	☐	☐
Fish oil			☐	☐	☐	☐	☐	☐	☐	☐
Evening Primose oil			☐	☐	☐	☐	☐	☐	☐	☐
Flax or linseed, whole, ground or oil			☐	☐	☐	☐	☐	☐	☐	☐
Other _____			☐	☐	☐	☐	☐	☐	☐	☐
Other _____			☐	☐	☐	☐	☐	☐	☐	☐

Appendix F.

DI_____

Diagnoses yes no

Does this client have a current diagnosis of unipolar depression? ☐ ☐

When was the diagnosis of unipolar depression made?

Does the client have any additional mental health problems? ☐ ☐

If **yes**, please list additional mental health diagnoses, and dates of each diagnosis

1.

2.

3.

Treatment

Is this client currently receiving any psychotherapy for depression? ☐ ☐

If **yes**, please indicate the primary treatment type

☐ supportive counselling

☐ rational emotive behaviour therapy

☐ cognitive behaviour therapy

☐ other (please state):

How long has your client been receiving this form of therapy?

☐ less than 1 month ☐ 1-3 months ☐ 3-6 months

☐ 6-12 months ☐ 1-2 years ☐ more than 2 years

	yes	no
Is your client receiving any medication for depression?	☐	☐

If **yes**, please list the medication(s) and current dosage

1.

2.

3.

Has client been on the same medications, at the current dosage, for **at least 2 months**?	☐	☐
Is this client receiving any additional treatment for any other mental problems?	☐	☐

If **yes**, please state:

General

How long has this person been a client of your service (for GPs, how long has the person been consulting you with regard to mental health problems)?

☐ less than 1 month	☐ 1-3 months	☐ 3-6 months
☐ 6-12 months	☐ 1-2 years	☐ more than 2 years

Are there any other comments relevant to this client's current diagnoses or treatment you wish to make?

Appendix G.

SUBSTANTIVE CODES	AXIAL CODES	SELECTIVE CODES
-NOT GETTING THINGS DONE -WORK PROBLEMS	FUNCTIONAL DEFICIENCIES	
-LOSS OF INTEREST -PHYSICAL SENSATIONS	LOSS OF INTEREST	EXPERIENCING THE SYMPTOMS OF DEPRESSION
-FEELINGS OF LOSING CONTROL -THE FOCUS OF DISTRESS	LOSS OF CONTROL	
-USING ANALOGUES -NOT FEELING SAD	EXPRESSIONS OF DEPRESSION	
-BEING STRONG AND IN CONTROL -BEING INDEPENDENT -BEING COMPETITIVE AND SUCCESSFUL	IDEALS OF MEN/ KEEPING CONTROL	
-BLAMING ENVIRONMENTAL STRESSORS -BLAMING OTHERS	EXTERNALISING ATTRIBUTIONS	SURVIVING/ USING PERSONAL COPING STRATEGIES
-NOT TELLING PEOPLE -AVOIDING SITUATIONS	AVOIDANCE TACTICS/ HIDING DEPRESSION	
-EXCESSIVE DRINKING -ANGER/ AGGRESSION/ VIOLENCE	EXPRESSING DISTRESS IN SOCIALLY ACCEPTABLE WAYS	
-LONG PRODROMAL PERIODS OF DEPRESSION	EXPERIENCING LONG PRODROMAL PERIODS	
-DEPRESSION AS A DOWNWARD SPIRAL -SYMPTOM DRIVEN DEPRESSION -PROBLEMATIC COPING STRATEGIES -PRESSURE TO DISCLOSE -MISUNDERSTANDING OF OTHERS	THE PROGRESSIVE BUILD UP OF DEPRESSION	THE EXPERIENCE OF BECOMING DEPRESSED
-REALISING THE NEED FOR HELP -FACING SIGNIFICANT LOSS	REACHING A POINT	
-WANTING TO GET BETTER -NOT WANTING TO GIVE CONTROL AWAY -ARTIFICAL/ SHORT TERM CHANGES	WANTING AND NOT WANTING TO RECEIVE TREATMENT	
-POSITIVE AND NEGATIVE TREATMENT EXPERIENCES -TALKING TO PEOPLE ABOUT DEPRESSION	THE THERAPEUTIC RELATIONSHIP	THE EXPERIENCE OF TREATMENT
-INDENTIFYING EFFECTIVE AND INEFFECTIVE TREATMENT -NON COMPLIANCE	ACCOMODATING PROFESSIONAL CONSTRUCTIONS OF DEPRESSION	

→ UNDERSTANDING THE NATURE OF DEPRESSION

- IDENTIFYING THE SIGNS AND ANTECEDENTS OF DEPRESSION
- DEVELOPING A PERSONAL THEORY OF DEPRESSION
- LEARNING TO COPE EFFECTIVELY WITH DEPRESSION

→ ACCOMODATING DEPRESSION WITH THE SELF

- ACCEPTING DEPRESSION AS A PART OF MY LIFE
- ADOPTING PREVENTATIVE COPING STRATEGIES
- FINDING PURPOSE

THE BASIC SOCIAL PROCESS: DEVELOPING A PARADIGM OF DEPRESSION